The Oil and Gas Journal

PRODUCING REFINING MARKETING

VOL. 24. NO. 51. TULSA, OKLAHOMA, MAY 13, 1926

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BE A REGULAR READER

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Refinery Section Starts on Page 128

Production Nears 2,000,000 Bbl. Mark

Highest daily average estimated production week ended May 30, 1925, 2,347,984 bbls. Lowest in 1925, January 3, 1,911,730 bbls.

All Areas of Country Active in Development Work With Good Promise of Maintaining Flush Output

By Andrew M. Rowley

Highest daily average estimated light oil production in 1925, week ended January 17, 1,525,220 bbls. Lowest in 1925, July 18, 1,374,173 bbls.

The daily average production of crude petroleum in the United States last week reached its highest level of thus far this year when it came to within less than 3,000 barrels of reaching the 2,000,000-barrel-a-day mark. Activity in a number of areas of the country, resulting in considerable new production, offset the natural declines in older fields and kept the production curve on the upward trend. In addition, new wells completed recently give promise of stimulating further development work in the same territories which probably will result in greater quantities of new production.

The Panhandle section of Texas is showing steady and substantial gains in crude oil output while the bringing in of wells of the gusher class in that territory indicates great possibilities of big production when pipe line facilities are available and an intensive drilling campaign is inaugurated. The discovery of oil in an old gas well by the Pure Oil Company near Groesbeck, Tex., making operators feel another fault line pool possibly has been found, is a development worth watching closely. The well has been making an average of about 100 barrels of oil a day since drilled slightly deeper, as told in The Oil and Gas Journal last week, and oil men again are watching the area near Mexia.

Every area in the country except the Gulf Coast recorded an increase in production during the past week, showing drilling activity is not confined to any particular section and that considerable new production is being developed. Wildcatters are particularly active in a number of territories and it seems probable the present high level of crude production can be maintained easily. The completion of a gusher from a shallow sand in the Garber Field in Oklahoma has centered interest again in shallow drilling in that field while the bringing in of another big well in the Ventura Avenue Field in California is attracting more interest from operators on the Pacific Coast.

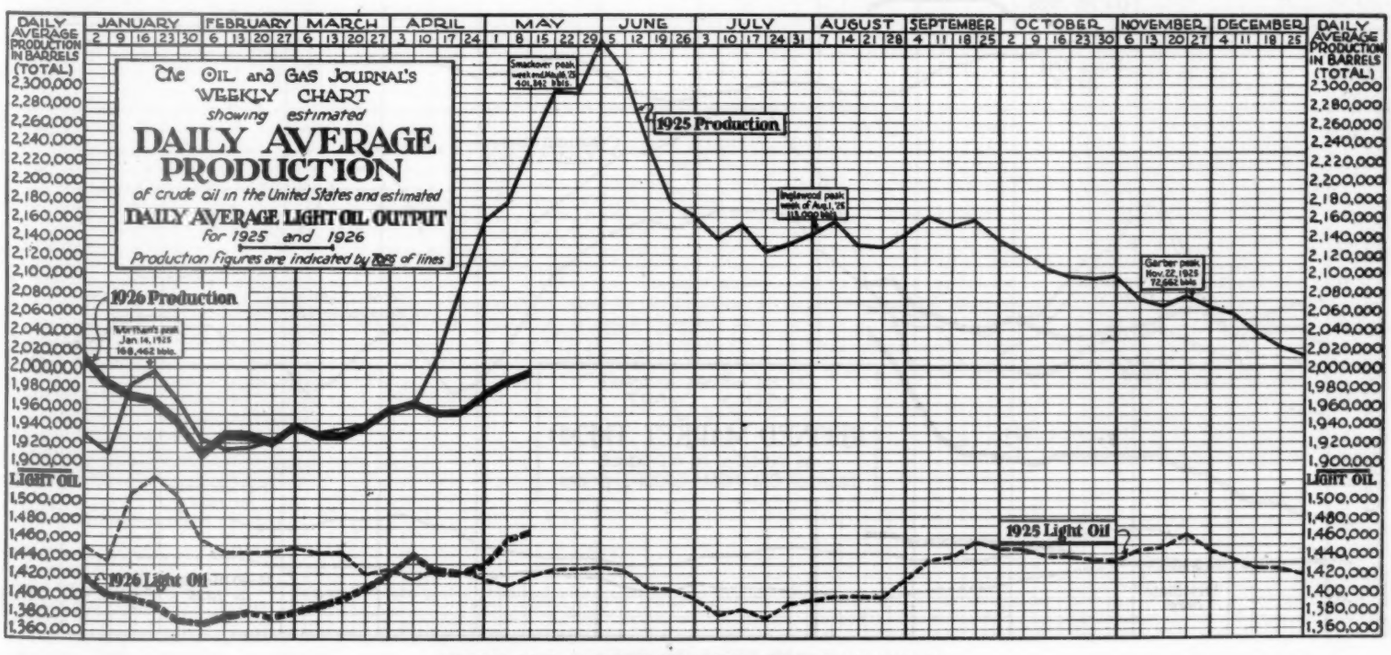
The general petroleum situation continues strong. While there is a lull in the refined oil market, it is believed this is due to the fact that jobbers stocked up on gasoline recently and that a good demand will be manifest again in the near future as good motoring weather stimulates consumption. This will be reflected in the crude oil market. It is estimated about 125,000 barrels daily of crude is being withdrawn from storage in Oklahoma and Kansas at this time.

PRODUCTION IN THE UNITED STATES

Estimated daily average production of light and heavy gravity crude oil in the United States for week ended May 8, and a comparison with the previous week follows:

	May 8		May 1	
	Light	Heavy	Light	Heavy
Oklahoma—				
Tonkawa	38,120		37,060	
Burbank	41,130		39,970	
Other Osage Fields	33,390		33,255	
Cushing and Shamrock	21,770		21,815	
Bristow and Eastern Bristow	29,760		29,840	
Cromwell	18,315		18,030	
Papoose	12,140		12,090	
Garber	39,705		34,125	
Blackwell-Braman	18,790		17,740	
Davenport	13,630		15,140	
Wewoka	32,125		34,905	
Northern Miscellaneous	101,050		102,535	
Southern Fields	65,950		66,710	
Total Oklahoma	465,875		463,215	
North Louisiana	55,040		54,365	
Arkansas—				
El Dorado and Calion	7,630		7,430	
Smackover Light	17,505		17,640	
Smackover Heavy		134,720		132,745
Miscellaneous	15,890		15,395	
Total Arkansas	41,025	134,720	40,465	132,745
North Central Texas	186,073		184,773	
Powell	30,300		29,700	
Mexia, Currie, Richland, etc.	15,620		15,780	
Wortham	9,300		9,650	
Kansas	105,190		105,210	
Total Mid-Continent Area	908,423	134,720	903,158	132,745
Gulf Coast		96,060		99,940
Southwest Texas		38,805		38,555
Eastern	103,825		102,400	
Rocky Mountain Area	111,480		108,480	
California—				
Santa Fe Springs	49,500		49,000	
Long Beach	104,000		104,500	
Huntington Beach	45,000		45,000	
Torrance	5,500	22,000	5,500	22,500
Dominguez	20,500		20,500	
Rosecrans	19,000		19,000	
Inglewood	30,500	22,000	30,000	22,000
Remainder of State	70,000	216,000	69,000	216,000
Total California	344,000	260,000	342,500	260,500
Total United States	1,467,728	529,585	1,456,538	531,740
Grand Total		1,997,313		1,988,278

→ **Total Increase, 9,035 Bbls.; Light Oil Increase, 11,190 Bbls.** ←



WHAT AND WHERE TO BUY—PAGES 167-168-169

Kerosene Prices Continue To Climb

All Grades Advance in Oklahoma During Week. Reactionary Trend in Fuel Oils and Gasolines Due to Slow Demand

By Nell Williams

Further advances in kerosene but a decidedly easier tone in gasoline and heavier oils, accompanied by some shading of prices, were the outstanding developments of the Oklahoma (Group 3) refined market the past week. Other products were little changed with natural gasolines inactive and uncertain in price and lubricants steady.

Kerosene continued its leading position and with additional tank wagon advances in the Standard Oil Co. of Indiana territory and other parts of the country refinery prices soared to new high levels. Even at quotations of 10 to 10¼ cents, the acute scarcity of the product prevailed.

The advance in the Standard Oil Co. of Indiana territory was the fourth in as many weeks, making a total of 2½ cents. Another bullish factor in the kerosene situation was the advance Monday by the Standard Oil Co. of New Jersey of a half-cent in export postings.

Although at these high prices, kerosene so far has given but little indication of easing up except that a number of refiners are known to be increasing their kerosene cuts materially this month. Several buyers also reported they have been able to place orders in 5 and 10-car lots for future shipment, whereas, a week or two ago they considered themselves lucky to get as much as one car.

At an admittedly dangerous high mark, the trend of kerosene is expected to depend on the gasoline demand. If gasoline demand is heavy, refiners will not be inclined to increase kerosene output to any great extent but if the consumption lags as it has the past week there will be a big inducement to cut more kerosene, which would weaken the market if enough is offered.

REFINED MARKET BAROMETER

Developments in refined markets of the country the past week were not entirely favorable especially in the Mid-Continent and Middle West where a generally easier tone prevailed. Gasoline prices were slightly higher in eastern refining centers but nearly all products were quiet. The dullness in the Mid-Continent resulted in price concessions when refiners found difficulty in moving their material. Kerosene alone continued strong and active in all areas, being stimulated to even higher prices by additional tank wagon advances and boosts in export postings. Fuel oil and gas oil weakened in the Mid-Continent. Natural gasolines were inactive but on the Pacific Coast indications were that these products might pick up again shortly. Lubricants generally were steady.

Mid-Continent—Kerosene prices advanced again from three-quarters to a cent due to additional tank wagon increases and continued scarcity. Other products, including gasoline easier with prices lower following period of sluggish demand. Natural gasolines inactive although manufacturers not burdened with distress material. Fuel oil off 5 cents a barrel and gas oil one-eighth cent. Lubricants steady but wax weak.

Atlantic Seaboard—Gasoline tighter with refinery price up half-cent. Kerosene strength reflected in additional tank wagon advances and higher export posting. Gas oil, Diesel and bunker oil firm. Lubricants and wax unchanged. Petrolatum sags.

Pennsylvania—Gasoline and kerosene prices higher. Fuel firm. Lubricants unchanged.

Chicago—Gasoline demand slower. Kerosene higher. Naphtha scarce. Gas oil softer and fuel easier.

California—Refined markets marking time. Gasoline demand satisfactory. Natural gasolines show signs of resuming strength.

Gulf Coast—Unchanged.

The tightness of kerosene already has had a very direct effect on naphthas, which the past week were practically unobtainable. Because of the small differential between kerosene and naphtha prices refiners have found it more profitable to sell kerosene rather than cut naphtha.

Gasoline Sluggish

The sluggishness of general market conditions Monday and Tuesday began to have its effect on gasolines. Although all declines were strongly resisted and some refiners even advanced quotations, an ever increasing supply of gasoline became available at lower prices. Refiners generally, reported very few orders for any product except kerosene, and some did not have a single inquiry for gasoline.

The heavy motor consumption of gasoline over the week end reported generally throughout the country had not caused any noticeable increase in inquiries by late Tuesday. This led refiners to believe that jobbers filled considerable storage during April, both by drawing heavily on contracts and on the spot market at prices much below present spot quotations.

This was in line with reports from several large jobbers that their companies had more than enough gasoline to carry them through to the middle of June if necessary. These jobbers reported they had been accumulating stocks of gasoline gradually for several months at low prices.

Larger refiners are more or less optimistic regarding the gasoline situation expecting the lull to be only of short duration. There usually is a lull and then a downward reaction of refined markets following tank wagon or crude advances but refiners following the last tank wagon advance two weeks ago expected the demand to pick up, and held prices firmly in anticipation of a crude increase.

Talk of a crude advance is growing less and less and general opinion now among refiners is that unless demand picks up and refined markets become active again there will not be a Mid-Continent crude advance at this time. Although such an advance was not favored by refiners on the whole the fact that there is doubt as to the possibility of a crude change perhaps is responsible to a large extent for the dullness of buying.

As there has been plenty of gasoline available some of the strength of this product the past two weeks has been due to an expected crude advance and refiners were hesitant to sell ahead. Now with a trend toward lower prices more and more of this gasoline is coming to light.

The situation has been made still more

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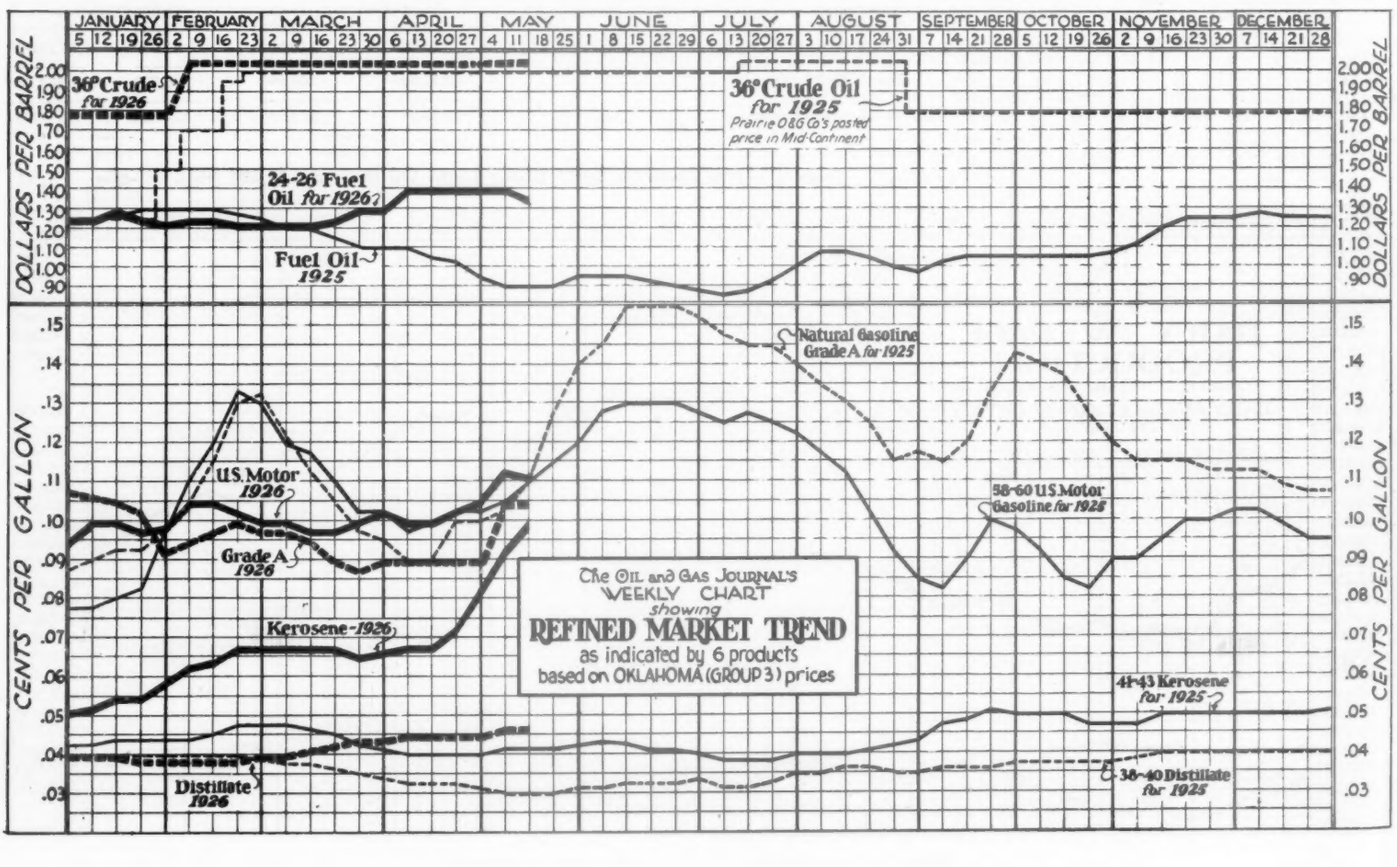
JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER
DOLLARS PER BARREL
36° Crude for 1926
24-26 Fuel Oil for 1926
Fuel Oil 1925
36° Crude Oil for 1925
Prairie O&G Co's posted price in Mid-Continent
CENTS PER GALLON
U.S. Motor 1926
Grade A 1926
Kerosene-1926
Distillate 1926
Natural Gasoline Grade A for 1925
58-60 U.S. Motor Gasoline for 1925
41-43 Kerosene for 1925
38-40 Distillate for 1925
The Oil and Gas Journal's WEEKLY CHART showing REFINED MARKET TREND as indicated by 6 products based on OKLAHOMA (GROUP 3) prices

May Form New Natural Gas Division

Question of Organization for Southwest to Be Considered at Annual Convention. Supply Men to Meet

By Andrew M. Rowley

Formation of a southwestern division of the Natural Gas Association of America, which, in the event of the amalgamation of the Natural Gas Association with the American Gas Association, may become the national association of those individuals and companies interested specifically in the natural gas business is probably one of the most important subjects to be considered at the twenty-

A. W. Leonard, president, Natural Gas Association of America.

first annual convention of the Natural Gas Association of America which convenes in Tulsa next Monday and continues through May 20. The convention of the Natural Gas Supply Men., Inc., will be held in conjunction with the meeting of the gas association and the supply men will have their exhibits on display in connection with both conventions.

The question of the Natural Gas As-

R. W. Gallagher, vice president, Natural Gas Association of America.

sociation of America affiliating with the American Gas Association has been discussed by gas men throughout the country for some time and leaders of the industry believe such an amalgamation is a logical step of the near future. The American Gas Association is devoted primarily to the interests of the manufactured gas industry. This industry is steadily becoming of greater importance in the eastern part of this country and the natural gas companies operating in that territory are entering more and more into the manufactured gas business.

Trend to Manufactured Gas

The trend of the natural gas business in the East is toward conditions existing in the manufactured gas business. A number of the larger natural gas companies in the East for years have been selling large quantities of manufactured gas, either mixing it with the natural gas or using it as a supplemental supply at times of shortage and peak demand, and considerable attention is being paid by these companies to the manufactured gas business. As a result, a close contact has been formed by these companies at least with the American Gas Association which is the national organization representing the manufactured gas industry.

Problems confronting natural gas companies in the East and those west of the Mississippi River are different in many ways in that companies in the East are facing a diminishng supply of the product they produce, transport and dstribute and, as a result, they must engage more and more in the business of manufactured gas. There is a large production of natural gas in the West and problems confronting natural gas companies in that territory relate more to markets, a further development of better uses of natural gas, and uses of the by-products of natural gas.

Provide Closer Contact

It is believed the formation of a southwestern division of the Natural Gas Association of America would provide

Fred A. Miller, president, Natural Gas Supply Men., Inc.

the natural gas men in that area with a means of more easily considering the many problems peculiar to the natural gas industry west of the Mississippi River, many of which problems, it is said, are of comparatively little interest to gas companies operating in the East. In other words, such a division would be the vehicle through which natural gas men and companies in the West could present their problems, exchange

Guy F. Batchelor, secretary both organizations

views and obtain quickly the benefits of experience of others.

At the convention of the Natural Gas Association of America in Atlantic City last year a committee composed of N. C. McGowan, of the Louisiana Gas Co., Shreveport, La.; H. L. Montgomery, of

(Continued on Page 146)

PROGRAM NATURAL GAS CONVENTION

MONDAY, MAY 17

9:30 A. M.—Exhibits open, Texas Building, International Petroleum Exposition Grounds.

10:00 A. M.—Meeting of the Technical and Research Committee and Sub-Committees, Mayo Hotel.

12:00 Noon—Luncheon will be served in Louisiana Building adjoining Exhibit Hall, Exhibition Grounds, free to all members wearing badges and holding luncheon tickets (obtainable Monday, Tuesday and Wednesday at registration booth.) Compliments of Natural Gas Supply Men, Inc.

2:00 P. M.—Annual meeting, Natural Gas Supply Men, Inc., New York Building, Exposition Grounds.

4:30 P. M.—Annual meeting, board of directors of the Natural Gas Association of America, Mayo Hotel.

6:30 P. M.—Annual dinner, board of directors of the Natural Gas Association of America, Mayo Hotel.

8:00 P. M.—Wrestling bouts and other entertainment, baseball park, Tenth and Elgin (at Convention Hall, 105 West Brady, in case of rain.) A free ticket will be handed to each member at the registration booth when registering. Compliments of Natural Gas Supply Men, Inc.

TUESDAY, MAY 18, 9:30 A. M.

Meeting of the Natural Gas Association of America, New York Building, Exposition Grounds.

Presiding—A. W. Leonard, president; R. W. Gallagher, vice president.

Invocation—Rev. C. W. Kerr, Tulsa, pastor, First Presbyterian Church.

Address of Welcome—H. F. Newblock, mayor of Tulsa.

Response—R. C. Sharp, Tulsa, vice president, Oklahoma Natural Gas Co.

Address of the President—A. W. Leonard, Tulsa, vice president, Oklahoma Natural Gas Co.

Appointment of Committee on President's Address by R. W. Gallagher, vice president.

Report of Memorial Committee—William H. Thompson, Columbus, Ohio, secretary, Ohio Gas & Oil Mens Association.

Reports—Board of directors; treasurer; membership, Guy F. Batchelor, general Secretary.

"Natural Gas—Its Conservation and Significance to the Gas and Oil Operator"—E. O. Bennett, Bartlesville, Okla., Natural Gas Engineer, United States Bureau of Mines.

9:00 P. M.

"Complaints Are Merely Contact Points to Promote Good Will"—John T. Naylon, El Reno, Okla., division manager, Oklahoma Gas & Electric Co.

"Methods of Selling Gas in Competition With Other Fuels"—E. J. Stephany, Pittsburgh, Pa., superintendent of sales department, Equitable Gas Co.

2:00 P. M.

"Field Development and Operating Economies"—Robert W. Hendee, Okmulgee, Okla., president, Kingwood Pipe Line Co.

Report of Wrinkle Committee—W. Re. Brown, chairman, Columbus, Ohio.

Report of Publicity Committee—H. J. Hoover, chairman, Cincinnati, Ohio.

"Association Service"—Edward F. McKay, Oklahoma City, Okla., manager, Oklahoma Utilities Association.

9:00 P. M.

Rose Carnival Ball, Mayo Hotel—Members of the association and their ladies are invited to be present as guests of honor.

WEDNESDAY, MAY 19, 9:30 A. M.

The entire morning session will be devoted to discussion of the following questions. J. D. Creveling of Henry L. Doherty & Co., New York, will act as chairman of the discussion:

1. What method would you use in removing water from a producing gas well, keeping gas wasted to a minimum? (Please state in your answer handling of wells both large and small capacity making a small amount of water or a large amount of water.)

2. How do you provide for slack in a large welded line to care for expansion and contraction?

3. (a) What, in your opinion, are effective methods of protecting trunk lines from corrosion?

(b) Do you think it necessary to protect service lines from corrosion under varying conditions? (If so, please state conditions and effective method under each condition.)

4. (a) What factors do you consider in determining whether to use an orifice or displacement meter for commercial and industrial consumers?

(b) In selecting a displacement meter for commercial and industrial consumer

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British Strike Being Fought With Oil

Competition of Petroleum With Coal Also at Bottom of England's Labor Difficulties. Tie-up May Benefit Oil Business Here

By N. O. Fanning
New York Bureau, The Oil and Gas Journal,

NEW YORK, May 10.—The British general strike is a reflection of the triumph of petroleum over coal; the strike is being fought with oil.

The decline of the coal industry, always one of Britain's greatest industries, is directly attributable to the rise of the use of petroleum as a fuel for ships, which has forced British shipping to use oil in order to compete, and has gradually limited the market for British coal all over the world. This has affected the prosperity of an industry employing more than 1,000,000 men, the largest number representing a single industry, now on strike in Great Britain.

Petroleum, in the absence of coal, is now the keynote of transportation in England, Wales and Scotland. The private automobile, bus, taxicab and truck comprise the chief means of transportation at present, and if anything will break the back of the strike, oil will do it.

The chief problem, however, is to assure the supply of gasoline, lubricating oil and fuel oil for these services.

The strikers realize the necessity of restricting the use of oil, but so far reports indicate they have been somewhat helpless. Here and there trucks have been found overturned, and automobile service of one kind or another interfered with. There have also been reports of the destruction of stored oil, including one instance of the destruction of 1,000,000 gallons of gasoline allowed to flow out of a tank at a large seaport.

The British Government has found it necessary as part of its program of combating the strike to assure itself an adequate supply of petroleum. To this end it has approached the leading oil marketers in Great Britain and has made arrangements for continued shipments of petroleum in bulk to British ports, with assurance of protection in the event of loss in unloading or storing the oil. The chief importing companies are the Anglo-American Oil Co., the British Petroleum Co., Shell Marketing Co., and several other American concerns.

The leading storage center in Great Britain is at Thameshaven, near London. This is, in fact, one of the largest storage centers in the world for refined oils. All companies use it, as it is managed by an independent concern not identified with any marketing company.

There are also large storage terminals at Hull (Anglo-American Oil Co.) and at Swansea, where the refinery and terminal of the Anglo-Persian Oil Co. is located. Other distributing terminals are at Glasgow, Liverpool and Manchester, with minor ones elsewhere.

Distribution During Strike

The problem resolves itself not so much down to getting the oil to English Seaboard terminals, as in distributing it throughout the country so that it can serve in transportation on a widespread scale, and not cause congestion at the terminals.

There will be no difficulty, oil companies say, in unloading bulk tankers. Barrel and case imports on cargo vessels may be interfered with somewhat, however, due to the possible difficulty of getting dock workers to unload them.

The two methods of distributing gasoline and other petroleum products from seaboard terminals in Great Britain are by means of tank cars and tank wagons. Unfortunately the use of tank wagons is not as prevalent in Britain as in the United States. The tank car traffic is practically at a standstill because of the tie-up on the railroads. Only food and non-inflammable substances are being moved by volunteer crews. Therefore, it is necessary to requisition all of the available tank wagons and trucks to carry tankfuls or drums of gasoline or lubricating oil inland, or else have individual motor vehicles drive up to seaboard terminal stations.

These emergency methods of distribution so far have proved inadequate as evidenced by reports of a gasoline shortage at some inland cities. But it is hoped the Government, with the aid of volunteers, will be able to assure service at principal cities if the strike continues, and perhaps be able to provide railroad service for tank car shipments later on.

So far as the present oil supply at terminals is concerned, it is estimated there are some 75,000,000 bbls. of refined oil in storage, or at least three months' normal consumption. Oil companies had just recently stocked up heavily in anticipation of the spring demand, and also in anticipation of a possible strike.

Effect on Oil Business

Leading oil men in this country believe the strike will benefit the oil business, as bringing out the advantages of oil over coal, and forcing a greater recognition of the benefits of motor transportation, especially truck transportation of commodities.

At present oil-burning vessels are being used in imports due to the shortage of coal, and therefore fuel oil consumption is greater than normal.

The widespread dependence on motor vehicles is swelling the demand for gasoline and lubricating oils. The industrial consumption of lubricants—"smoke-stack trade" as it is called,—is being adversely affected, however, due to shut down of factories.

The actual effect of the strike on petroleum consumption, however, will depend upon the length of the strike, a factor which no oil man interviewed here is willing to estimate.

The general view of the oil trade here is of calm assurance. "Business going on as usual," as one of the leading oil companies importing into Great Britain expressed it. So far as could be learned no change in schedule of shipping oil to Great Britain has been made.

The Anglo-American Oil Co., credited with supplying 50 per cent of the British oil trade, ships considerable bulk oil from New York. In fact this is practically the only company making bulk shipments to the British Isles from this port. No interference with its exports has been reported, and officials of the company are taking a calm view of the situation.

April bulk shipments of petroleum products from New York to the British Isles were as follows:

Tanker Mobiloil left April 5 with 215,000 gallons of lubricating oil.

Tanker Potomac left April 22 with 887,532 gallons of lubricating oil.

Tanker Lackawanna left April 24 with 600,589 gallons of lubricating oil and 319,853 gallons of kerosene.

The April bulk shipments were considerably smaller than those for March.

An interesting non-bulk shipment from New York consisted of 500 tons of petroleum coke, shipped to Glasgow on the cargo vessel Kearny. It left April 25.

Oil and Labor

The British strike is really the result of an industrial revolution caused by the substitution of oil for coal, directly and indirectly. This is somewhat similar to difficulties which occurred more than 100 years ago in Great Britain in connection with the adoption of machinery in place of hand-work in the textile industry.

Petroleum not only is gradually pushing out coal in many directions, but the use of oil entails much less labor, and therefore, the employment of labor in connection with oil uses has not been great enough to offset the decrease in coal labor.

The difficulty lies in obtaining new employment, gradually, for those formerly employed in the coal industry. Instead of even trying to do this, however, the tendency has been to stimulate the coal industry artificially through Government subsides, and so on, in order that labor might be profitably employed without seeking work in other industries. The size of the British coal industry, employing as it does more than 1,000,000 men, makes the situation especially acute.

Meanwhile, England is fighting to obtain control of oil supplies, with the aid of its Government and financiers, but often without the support of labor, which sees greater employment in the continued use of coal.

At the same time, England must use oil wherever it is of greater economy than coal, in order to compete in world trade, especially in her great merchant fleet, on which the prosperity of Great Britain has for so long depended.

NATIONAL OIL SCOUTS OF AMERICA READY FOR SAN ANTONIO MEETING

By B. D. Stevenson

SAN ANTONIO, Tex., May 8.—San Antonio is all set and prepared to welcome to its portals the National Oil Scouts of America in May, when they hold here their second annual convention.

San Antonio is an oil town. One day in the past it was a cow town and proud of it. Now it is an oil town with three or four dozen oil companies having their offices here. But oil is probably the last thing that a scout will think of while here for this will be his day off.

In Brackenridge Park there is a golf links claimed to be a world beater. At Medina Lake 31 miles west is the famous Medina dam and Medina Lake, the first an engineering feat of first rank and the second a fishing spot nowhere excelled. San Antonio is the only town of over 200,000 population in the world where you can start from the business center of the city in an automobile, drive in the country and shoot wild deer and get back before 9 a.m. of the same day. It has been done more than once—but they won't let you do it in the month of May.

The four Missions are visited by most every tourist that comes to the city. The oldest was built in 1690 and all are within easy reach of the city by automobile. A carved window and a carved door in this old church has been photographed and copied by architects the world over.

The second annual convention of the National Oil Scouts of America will meet here May 17 and 18 and it is expected that it will be by far the largest gathering yet held with several hundred in attendance. Every preparation it is possible to make in advance has been made for the entertainment of the scouts. Special preparations have been made for the entertainment of the wives and it is expected that almost every scout will bring his wife. Some of the most prominent oil men in the country will also be present.

The convention will open Monday, May 17 in the Gunter Hotel which will be the headquarters. Harry Sample, member of the executive committee and scout for the Marland Oil Co., in San Antonio, assisted by the Chamber of Commerce, has perfected the local arrangements and the main features of the program were outlined by the officers of the association.

Monday afternoon, May 17, will be devoted to registrations and the first business meeting will be held at 2 p. m. Scouts who like to play golf have been tendered the links of the Alamo Country Club and the public links at Brackenridge Park are also open. At 8 p. m. the annual banquet will be held with some of the ablest speakers in the oil industry present to talk.

Tuesday, May 18, there will be a business session and election of officers in the forenoon and at 12:30, in automobiles provided for the occasion, all the scouts will be taken to Seguin in Guadalupe County, the next county to the east, where H. H. Weinert, banker and oil operator, will tender a barbecue dinner and feast. That will consume the entire afternoon and in the evening at 8:30 there will be a dinner dance at the Alamo Country Club. That will close the convention officially but the city of Laredo and the oil men there have invitations to scouts, and are making the invitations difficult to resist, to stay over a day, visit Laredo on May 19, see Old Mexico and end the unofficial part of the convention in that city.

Wives of scouts and oil men living in San Antonio have provided to entertain the visiting wives and during the forenoon on May 17 they will be tendered a reception in the Pink Room of the Gunter Hotel and during the evening while the men are banqueting they will be tendered a theater party. During the afternoon of May 18 they will be given a sight-seeing trip to all the beauty spots of San Antonio. That evening they will attend the dinner dance at the Alamo Country Club.

OIL BOARD WILL HEAR MR. HUGHES ON MAY 27

WASHINGTON, D. C., May 10.—The President's Oil Conservation Board has notified former Secretary of State Charles Evans Hughes, counsel for the American Petroleum Institute, that the board will be glad to have Mr. Hughes appear before it May 27 at 10 a. m. and present such data relating to national petroleum conditions as he may desire.

This action was taken in deference to a request filed with the board by President W. S. Farish of the institute last February, when national leaders of the industry were given a hearing by the oil board.

There were several requests for hearings by oil men who desired to appear when this hearing is given to Mr. Hughes, and Secretary Hubert Work, chairman of the board, is inclined to maintain the principle of the open forum by allowing any representative of oil interests to have an opportunity at this time to present such arguments as he may desire.

The next work to be undertaken will be the formulation by the board of reports treating of foreign conditions.

Substantial Increase in Refinery Runs

Mid-Continent Plants Add 23,045 Bbls. Daily to Their Crude Throughput. All Areas Increase With Largest Gain in Oklahoma

By Neil Williams

The seasonal increase in gasoline consumption and the higher prices for nearly all petroleum products is inducing Mid-Continent refiners to boost their output. This was indicated in The Oil and Gas Journal's monthly review of refinery operations which showed that on May 1 crude runs to stills were 23,045 bbls. greater than on April 1.

The total throughput on the first day of the month was 391,355 bbls., which was the largest amount of crude run to stills this year, and also since October of last year when 415,575 bbls. were being run daily. On January 1, runs to stills were as high as 390,200 bbls., but since then Mid-Continent refiners let their operations decline to the lowest level since November 1, 1924.

This lowest mark in refinery operations was on March 1, and, although runs were boosted slightly on April 1, it was not until the latter part of April that there was a very noticeable trend toward boosting daily runs by Mid-Continent plants. The throughput on April 1 still was only 368,310 bbls., which was only 3,320 bbls. above the March 1 low point.

While the increase in runs may be due to the improved market conditions as a whole, one of the most important factors has been the unusually tight kerosene, fuel oil, gas oil and distillate situation the past two months. The products have been almost unobtainable and the record prices offered by buyers probably have resulted in many refiners boosting their production of these products to meet the heavy demand.

The gas oil and fuel situation has eased up slightly in the last two weeks, although these products still are in demand by refiners for cracking stock, but the refiners still are far behind with their kerosene orders. Kerosene now is worth as high as 10 cents a gallon, the highest price since 1920, but even at that figure buyers are unable to cover their needs for immediate shipment.

MID-CONTINENT REFINERY OPERATIONS

Table No. 1

(Based on plants May 1, 1926, and April 1, 1926.)

	*No. Plts. May 1	Capacity	Plts. Op. May 1	Daily Runs May 1	Plts. Op. Apr. 1	Daily Runs Apr. 1	Daily Increase May 1
Oklahoma	59	276,200	48	172,445	47	162,530	9,915
North Central Texas	46	177,100	32	82,155	30	81,150	1,005
†Kansas	23	130,900	18	78,300	17	72,675	5,625
N. Louisiana	6	41,500	5	37,800	5	33,500	4,300
Arkansas	9	31,000	9	20,655	9	18,455	2,200
Total	143	656,700	112	391,355	108	368,310	23,045

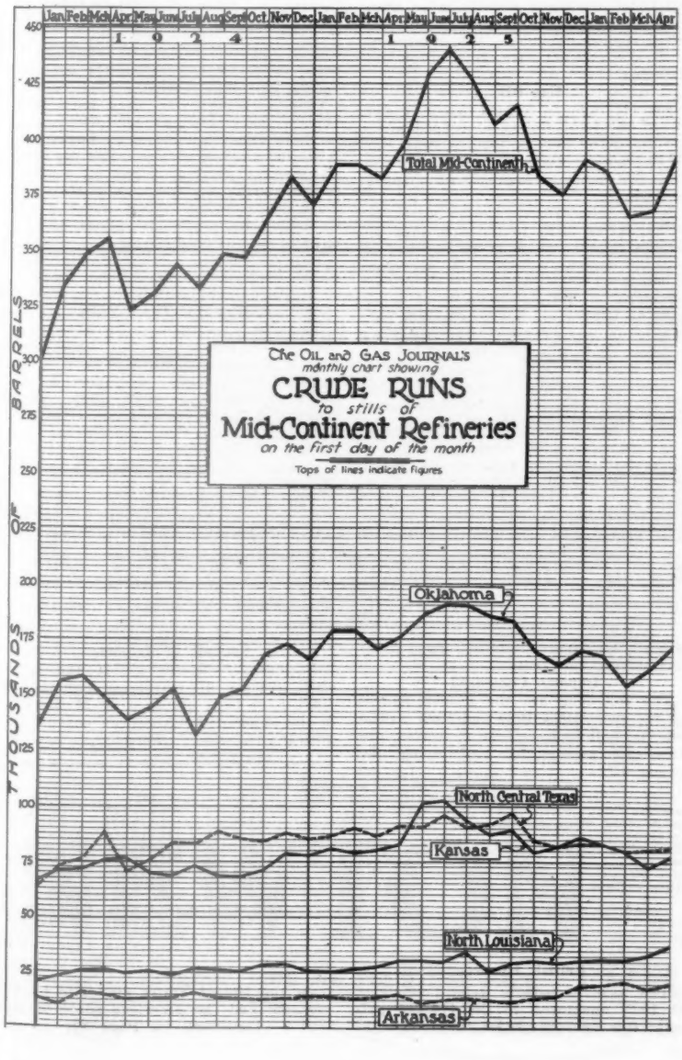
*Does not include plants which have been shut down one year or longer.
†Includes one Missouri plant.

Table No. 2

(Based on plants May 1, 1926, and May 1, 1925.)

	*No. Plants May 1, 1925	Capacity May 1, 1925	Plants Oper'g May 1, 1925	Daily Runs May 1, 1925	Daily Decrease May 1, 1926
Oklahoma	59	268,600	52	176,425	3,980
North Central Texas	46	170,050	39	91,175	9,020
†Kansas	24	119,000	22	82,390	4,090
North Louisiana	7	37,300	6	30,500	‡7,300
Arkansas	14	35,700	9	18,450	‡2,205
Total	150	630,650	128	398,940	7,585

*Does not include plants which have been shut down one year or longer.
†Includes three Missouri plants.
‡Increase.



Effect of Yields

Because of the rapidly decreasing percentage of yields of these products through modern refining methods, the increase in runs so far has not caused a noticeably greater supply, particularly kerosene. The slightly easier tone in fuels has been felt only in the lower gravities and has been due more to slackening of demand by industrial and domestic consumers as a result of the warmer weather rather than to a material increased production.

Refinery gasoline prices also are the highest point they have been since last August. These prices have come as a result of a period of fairly active domestic demand during April. However, there has been no advance for a week and apparently there is plenty of gasoline available, which may be due to a great extent to the increase in runs.

Despite the marked increase during April, refinery runs are not as great as at this time last year. On May 1, 1925, Mid-Continent refiners put 398,940 bbls. of crude through their stills, which was 7,585 bbls. more than on May 1 this year.

The tightness of the crude situation the last two or three months has been responsible to some extent to the lower refinery runs this year than last, but the poorer market conditions have been the principal factor. Production of gasoline has not been materially lessened, however, as the development of cracking the past year has enabled refiners to increase their yield even with the lower actual crude runs.

Crude Situation

The increase in crude runs to stills this month may tend to increase the tightness of crude as on May 1 refiners ran 37.8 per cent of the total production in the Mid-Continent Field on that day. On April 1 only 36.3 per cent of the crude production was being taken by these same refiners.

These percentages are based on production figures compiled by The Oil and Gas Journal, which showed that on May 1 the Mid-Continent fields yielded 1,035,903 bbls., while on April 1 a total of 1,011,325 bbls. was produced. It can be seen from these figures that the percentage of crude taken by Mid-Continent refiners increased despite the slight gain in crude production.

Considerable speculation now is current among refiners regarding a crude advance. Barring any material increase in crude production, such an advance would seem inevitable in the near future with runs to stills being boosted, according to market students. However, the quiet refined markets may have a tendency to slacken runs and with a continued increase in production of crude, an advance in the near future may be prevented.

The gain in crude runs to stills was general throughout the five states comprising the Mid-Continent. Oklahoma refiners led with the greatest increase, although North Louisiana and Arkansas showed the greatest proportionate gain.

Oklahoma

Oklahoma refiners ran 172,445 bbls. to their stills on May 1, which was a gain of 9,915 bbls. over the same day of the previous month. Seventeen out of the 48 operating plants in Oklahoma increased their runs all the way from 100 to 1,600 bbls., the largest boost being by the Illinois Oil Co. at Cushing. This company on April 1 was running only 400 bbls. daily, but on May 1 2,000 bbls were put through the stills.

The Cushing Refining & Gasoline Co. had a serious fire at its Cushing plant during the month, resulting in a loss of several thousand dollars, but the blaze was confined to parts which did not affect the operation of the refinery only a short time.

A substantial reduction in runs at the West Tulsa plant of the Producers &

(Continued on Page 145)

MID-CONTINENT REFINERY RUNS SHOW INCREASE

REFINING OPERATIONS IN OKLAHOMA

(Plants which have been in operation during the past year.)

Name and location—	Daily Capacity	Runs May 1	Runs April 1
Anderson-Pritchard, Cyril	1,200	1,300	1,500
Barnsdall Refineries, Inc., Barnsdall	5,000	3,800	3,800
Barnsdall Refineries, Inc. (Waite Phillips), Okmulgee	6,000	4,000	4,000
Bell Oil & Gas Co., Grandfield	3,000	1,500	1,200
Bolene Refining Co., Enid	5,000	3,400	3,000
Cameron Refining Co., Ardmore	3,900	3,000	3,100
Canfield Refining Co., Yale	500	150	150
Champlin Refining Co., Enid	16,000	12,000	7,500
Coleman-Nelson Corp., West Tulsa	2,000	Shut down	Shut down
Continental Oil Co., Sapulpa	7,000	1,500	1,500
Cushing Refining & Gasoline Co., Blackwell	1,500	1,200	1,200
Cushing Refining & Gasoline Co., Cushing	2,500	1,500	1,500
Empire Refineries, Inc., Cushing	7,000	5,000	5,000
Empire Refineries, Inc., Okmulgee	3,000	3,000	3,000
Empire Refineries, Inc., Ponca City	6,500	6,000	6,000
Fairmount Refining Co., Fairmount	2,500	Shut down	Shut down
Garber Refining Co. (Omar)	3,000	2,100	1,700
Gilmer Oil Co., Ringling	1,100	1,060	730
Globe Oil & Refining Co., Blackwell	5,000	4,700	4,500
Hewitt Refining Co., Hewitt	1,800	725	750
Illinois Oil Co., Cushing	3,000	2,000	400
Imperial Refining Co., Ardmore	6,000	3,950	4,650
Independent Oil & Gas Co. (Allied), Okmulgee	1,800	1,200	1,000
Interocean Refining Co. (Lorraine), Bristow	4,000	1,200	1,000
Lawton Refining Co., Lawton	1,000	Shut down	Shut down
Johnson Oil Refining Co., Cleveland	5,000	4,600	4,700
Marland Refining Co., Ponca City	25,000	16,000	16,000
Mecca Refining Co., Allen	1,500	100	100

(Continued on Page 96)

British Refining Affecting Imports

Beginning to Increase Their Foreign Purchases of Crude and Lessening Those of Refined Products

By Charles E. Kern
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., May 10.—A very thorough review of the British petroleum trade in 1925 has been issued by the Bureau of Foreign and Domestic Commerce, Department of Commerce.

"Petroleum and petroleum products account for nearly 10 per cent of the total value of merchandise exports from the United States, the value of the petroleum shipments in 1925 amounting to almost a half billion dollars," states Julius Klein, director of the bureau.

"Gasoline, including other light products, is the third largest individual commodity export from this country, in value, while gas and fuel oils and gasoline rank second and third respectively in quantity exports, these products being exceeded only by coal and coke in tonnage shipments.

Largest Market

"The United Kingdom has long been the largest single market in this petroleum export trade, and the trend of the British trade is therefore of particular interest to American petroleum exporters. During 1925 the United Kingdom took 28 per cent of the gasoline, over 12 per cent of the kerosene and gas and fuel oils, 22 per cent of the lubricating oils, and 27 per cent of the paraffin wax, exported from the United States. This trade will doubtless continue to be affected by the growth of the petroleum refining industry in the United Kingdom itself, by developments in the Scotch shale oil industry, and other factors which tend to increase or decrease the importation of petroleum products. Some of these tendencies have been particularly apparent during the past year, and this report has been prepared for the purpose of outlining briefly these trends and developments, with statistics of the trade during 1925 and the years immediately preceding."

This compilation of information received from abroad was compiled in the Minerals Section of which Homer S. Fox is in charge, and contains voluminous tables showing the drift of our trade in oil with Great Britain, during the past several years compared with 1925. Eventually it will be published by the department in trade information bulletin 407, available to the industry.

In considering the petroleum trade of Great Britain during 1925, petroleum imports officially valued at £39,512,660, comprised approximately 3 per cent of the total value of all products.

Petroleum exports were valued at £4,762,949, about six-tenths of 1 per cent of the total British export trade.

Petroleum products to the value of £2,956,841 were re-exported and accounted for 20 per cent of the total value of the 1925 re-export trade. Continuing, the bulletin states:

"The British petroleum trade has for several years been undergoing a change, and some important developments are to be observed in the 1925 trade. Taking the important trade in petroleum in its entirety, there has been an increase of 43,156,334 American gallons, compared with 1924. (The imperial gallon used in England is equivalent to 1.2 American gallons.)

British Refining Growth

"To obtain a correct view of the situation it is necessary to consider the imports of crude oil and of refined products separately. Imports of crude petroleum in 1924 amounted to 557,235,924 gallons; in 1925 the crude imports totaled 673,945,778 gallons, or an increase of 116,709,854 gallons. This approximate 21 per cent increase, while not as large an increase as occurred the preceding year, is striking evidence of the growing importance of the British refining industry.

"The result of the increasing imports and throughput of crude petroleum at Swansea, Shellhaven and Grangemouth refineries, has been a decrease in the imports of refined products. Imports of refined products in 1924 amounted to 1,327,857,145 gallons, as against only 1,254,303,655 gallons in 1925. This decrease of more than 5 per cent indicates the probability that, with developments continuing as at present, and uninterrupted by unforeseen economic factors, the import trade in refined products is on a downward trend.

"While 1925 importations are still in excess of 1923 by a margin of some 60 million gallons, development in 1926 will be watched with considerable interest, and the outcome is likely to be a confirmation of the expected continuance of decline.

"Not only has the activity of British made itself felt on the import trade, but exportations of refined products have increased from 128,968,214 gallons in 1924 to 200,414,832 gallons in 1925."

It is interesting to note the small margin of difference between the decline in imports of refined products, and the increase in exports of refined products. The decrease in imports was 73,553,490 gallons, and the export increase was 71,446,218 gallons. The following figures are considered of interest in this connection:

	British Imps. Crude Pet.	British Expts. Refined Prod.
1923	401,541,115	90,586,238
1924	557,235,924	128,968,214
1925	673,945,778	200,414,432

Imports, Exports, Re-exports

The following table gives in American gallons the imports, exports and re-exports of refined products during 1925. The ratio that each item bears to the total is given below:

(Figures in American Gallons)

	Imports	Exports	Reexports
Kerosene	169,979,310 (13.54)	24,883,128 (12.42)	12,152,963 (16.08)
Gasoline	485,849,762 (38.74)	61,543,944 (30.71)	55,555,528 (73.52)
Lubricating oil	102,567,998 (8.18)	9,605,190 (4.79)	2,044,043 (2.70)
Gas oil	87,162,242 (6.95)	3,081,648 (1.54)	2,034,230 (2.69)
Fuel oil	401,281,919 (31.99)	101,082,596 (50.44)	3,738,604 (4.95)
Spirits other than gasoline	7,257,999	57,924	24,217
Other sorts	204,425 (0.6)	160,002 (0.10)	12,186 (.06)
Total, American gallons	1,254,303,655 (100.00)	200,414,432 (100.00)	75,561,771 (100.00)

The total imports of refined products during 1925, amounting to 1,254,303,665 gallons, was a decline of 73,563,490 gallons, or 5½ per cent, as compared with 1924. Decreases have occurred in importations of all kinds of refined products, except kerosene, gas oil, and spirits other than gasoline. Kerosene imports increased about 13½ per cent, and spirits other than gasoline about 50 per cent, while gas oil imports increased 7 per cent. Importations of refined products averaged about 100,000,000 gallons per month, with the heaviest receipts arriving during May, June and July.

Gasoline

Gasoline is the most important item of the refined products imported into Great Britain. This product represented almost 39 per cent of the total volume of imported refined products, although the 485,849,762 gallons of gasoline received during the year was a decrease of 923,367 gallons, or 4 per cent, as compared with 1924. The average monthly importations were about 40,000,000 gallons. The largest receipts of the year were during the months of March, May and July.

Fuel Oil

Fuel oil stands second in importance in the import trade in refined products, and in 1925 represented about 32 per cent of the total volume. There was, however, a decrease in the importations as compared with 1924, of 61,416,476 gallons, or about 13 per cent. The largest shipments were received during the months of January, June and September, arrivals during each of these months having exceeded 40,000,000 gallons.

Kerosene

Kerosene accounted for about 13½ per cent of the total importations of refined products, the receipts having been 169,979,310 gallons. This is an increase of 20,365,660 gallons, or about 13½ per cent, as compared with 1924. The months during which the largest amounts arrived were January, July and October.

Lubricating Oil

Lubricating oil imports during 1925 amounted to 102,567,998 gallons, which is 19,527,822 gallons, or about 16 per cent less than 1924. Lubricating oil importations comprised slightly more than 8 per cent of the total volume of imported refined products. The months of the largest receipts were April, June and December.

Gas Oil

Gas oil imports formed about 7 per cent of the total volume of refined products imported during 1925. Some 87,162,242 gallons were imported during the year, this being an increase of about 7 per cent.

Spirits other than gasoline were imported during 1925 to the extent of 7,257,999 gallons, which is an increase of 3,591,567 gallons, or about 50 per cent, as compared with 1924.

Imports of refined products of other sorts in 1925 amounted to 204,425 gallons, as compared with 1,523,000 gallons in 1924. This is a decrease of 1,318,575 gallons, or about 86 per cent.

Imports of spirits other than gasoline and refined products of other sorts represented about 6/10 of 1 per cent of the total of the import trade in refined products during the year.

Imports Compared

The following are the import figures for the years 1923, 1924 and 1925. (The imperial gallons have been converted into American gallons by multiplying the former 1.2):

(Figures in American Gallons)

	1923	1924	1925
Gasoline	392,680,404	506,773,129	485,849,742
Spirit other than gasoline	2,828,975	3,666,432	7,257,999
Kerosene	172,954,201	149,613,650	169,979,310
Lubricating oil	98,667,235	122,095,820	102,567,998
Gas oil	84,895,308	81,486,718	87,162,242
Fuel oil	436,485,748	462,698,395	401,281,919
Other refined oils	77,479	1,523,000	204,425
Total	1,188,589,350	1,327,857,145	1,254,303,655
Crude	401,541,115	557,235,924	673,945,778
Grand total	1,590,130,465	1,885,093,069	1,928,249,433

British Exports

The total exports of refined products of 1925 amounted to 200,414,432 gallons; this figure exceeded the 1924 total by 71,446,218 gallons, or about 55 per cent.

Increased exportations occurred in all classes of products, except spirits other than gasoline, which dropped from 505,651 gallons in 1924 to 57,924 gallons in 1925. Shipments were largest in July, October and December, and lowest during June, when but 6,909,191 gallons were exported.

During 1925 fuel oil was the most important item of the petroleum export trade of Great Britain, as more than 50 per cent of the exports of refined products were fuel oil. Shipments during 1925 exceeded those of 1924 by 3,014,816 gallons, this being an increase of about 50 per cent as compared with 1924. The largest shipments were during the months of May and July.

Gasoline was the second most important item in the petroleum export trade, representing about 31 per cent of the total; 61,543,944 gallons were exported during the year, which is an increase of 31,937,287 gallons, or 108 per cent greater than 1924. The largest shipments were made during February, October and December.

Kerosene represented about 12½ per cent of the total exports of refined products. The increase, as compared with 1924, was 3,200,138 gallons, or about 14½ per cent.

Lubricating oil exports increased about 5 per cent during the year, as compared with 1924. Lubricating oil exports during the year represented almost 5 per cent of the total exports of refined products. The heaviest shipments occurred during May and August.

Gas oil exports increased from 900,286 gallons in 1924 to 3,081,648 gallons in 1925, this representing an increase of 2,181,362 gallons, or about 242 per cent. The greater portion of gas oil was exported during the months of May and November, during which months the shipments were 848,399 gallons and 1,621,262 gallons respectively.

Exports of spirits other than gasoline decreased from 505,651 gallons in 1924, to 57,924 gallons in 1925.

Exports for Three Years

There was an increase of 75,487 gallons, or 89 per cent in the exports or refined products of other sorts.

The following are the export figures for the years 1923, 1924, 1925. (The imperial gallons have been converted into American gallons by multiplying the former by 1.2):

Total British Petroleum Exports, 1923-1925
(Figures in American gallons)

	1923	1924	1925
Gasoline	16,017,928	29,606,657	61,543,944
Spirit other than gasoline	110,692	505,651	57,924
Kerosene	14,150,884	21,682,990	24,883,128
Lubricating oil	7,734,316	9,120,335	9,605,190
Gas oil	969,312	900,385	3,081,648
Fuel oil	51,516,438	67,067,780	101,082,596
Other sorts	86,668	84,515	160,002
Total	90,586,238	128,968,214	200,414,432

Sources of Imports

Preliminary figures giving the principal sources of petroleum imports in 1925, have been prepared by M. Brown, in the office of the American commercial attache, London. Petroleum imports from the United States decreased by 13 per cent and the American share of the

(Continued on Page 84)

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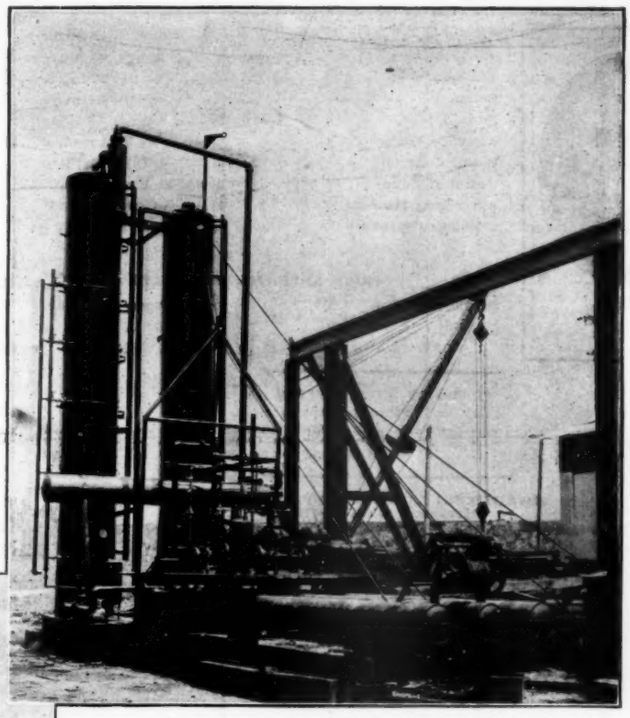

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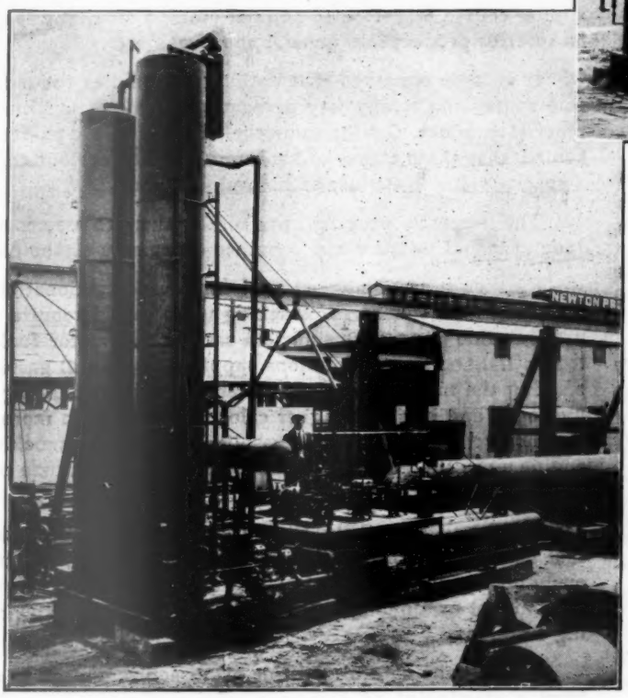

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In presenting to the Natural Gasoline Fraternity our Portable Absorption Plant, we have embodied features covering the long felt wants of the operator. We had steadfastly refused to manufacture a Portable Plant, until we were in a position to overcome the contention that a portable plant was immobile, inaccessible, and lacking in efficiency.

A glance at the accompanying photographs will demonstrate how well we have overcome these objections.

Everything on this Plant is standard Newton equipment as used in Regular Installations. The same high efficiency is therefore maintained. Every part is accessible, yet compact and neat appearing.

The base is in two parts which can be quickly bolted together. Every connection fits into place. The larger unit contains the Interchangers, Pumps, Crane and winch. The smaller contains the Dephlegmator, Liquid Level Controls and serves as a base for the Absorber and Evaporator. The Absorber and Evaporator are hinged and can be raised to position by the labor of one man operating the hand winch.

The heavier unit in this Type "D" plant weighs six tons, and the lighter two tons.

NEWTON PROCESS
MANUFACTURING COMPANY
FULLERTON, CALIFORNIA

The OIL and GAS JOURNAL
PRODUCING REFINING MARKETING

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COMPETITION IN EFFICIENCY

The only competition that counts for progress—competition in efficiency—was the chief note in the discussions at last week's convention of the Association of Natural Gasoline Manufacturers.

It found expression in the resolution to launch a program to inform the consumer regarding the motor fuel value of natural gasoline.

It is a remarkable illustration of the rapid and revolutionary developments in the manufacture of gasoline and the new qualities desired in that product for use in internal combustion engines that such a campaign of education on the merits of natural gasoline should be deemed necessary.

Not so very long ago—a year or two at most—natural gasoline was universally recognized as practically unrivalled for its effects in blending, adding "pep" when needed. The natural gasoline industry had every reason to look forward to retaining an undisputed position.

Meanwhile the cracking processes were developing far beyond original hopes. They were producing not alone more gasoline, but better gasoline.

About the same time the automotive industry began stressing the value of anti-detonation motor fuel. The tetraethyl lead discussion brought wide publicity. One big company after another announced its brand of knockless gasoline.

Automotive engineers promised higher compression engines that would double the mileage with the proper fuel. The oil industry took up the challenge or rather, continued the development it had always been doing.

Then came the announcement that cracked gasoline, once a despised synthetic product, was really a superior motor fuel possessing particularly certain anti-knock characteristics so much in demand.

It was a simple and perhaps natural result that many got the impression that this development pushed natural gasoline into the background. It is a common fallacy to generalize from the particular and to jump to universal conclusions from partial facts.

The industry made this mistake in hasty judgment on the motor fuel value of light and heavy oils and more recently on the effects of using fuel oil as a gasoline base.

Probably in no other industry has there been such a succession of utterly unlooked for developments as in the oil business. Technological progress is continually amending or repealing a lot of the things we think we know about the potentialities of petroleum.

It will be much wiser to say to ourselves that while the cracking processes can produce a certain product with certain qualities and the use of natural gasoline can produce a certain product with certain qualities this is far from the whole story.

There are a whole lot of loose ends that remain to be found before we have exhausted the possibilities of producing a motor fuel that will be perfection in every respect.

We are still lamentably short of transforming the larger part of the energy stored in oil into power in the motor engine.

The best progress made so far can hardly be considered more than comparative. The automotive industry itself is no better informed on the ideal fuel than is the oil industry.

The decision of the Association of Natural Gasoline Manufacturers to devote increasing efforts to research regarding the special value of natural gasoline in motor fuel and to give the consumers the facts emulates the example of the cracking interests who, by a similar course, transformed popular opinion of what was considered an inferior product into general approval.

It is to be remarked that nothing was said at the natural gasoline convention in any way derogatory of the claims made for the cracked product. On the contrary, the attitude was, let it be assumed, that these claims are substantially correct but there is still a special value in the use of natural gasoline.

The research program was undertaken to demonstrate that judgment and to show and convince consumers of the basis for it.

Further it was declared that improved fractionation and the increase in the number of cracking units would require more natural gasoline to produce sufficient satisfactory motor fuel; that the low initial and lighter fractions supplied by natural gasoline aid in starting the motor; that the lighter hydrocarbons, being richer in hydrogen and having a higher calorific value, mean more power to the motor; and that natural gasoline means less knocking of the engine since the heavier paraffin hydrocarbons detonate more readily than the lighter groups.

Besides these qualities there was said to be the economic effect that natural gasoline enables the refiner to utilize more advantageously his heavier naphthas from the crude, and to operate his cracking units at maximum capacity with less regard for the lower boiling fractions.

In short the natural gasoline manufacturers mean to show that from a standpoint of economic efficiency there is an increasing need for their product in maintaining the necessary proportions of the various products of petroleum. And finally there is always the factor of costs which in many cases may be determining.

This is broad gauge competition that recognizes the value of the other fellow's efforts as complementary rather than merely competitive except in efficiency and resolves to meet him in the test of accomplishment instead of wasting time in argument.

For the industry at large there is the conclusion that with the demand for motor fuel growing as it does from year to year and with the prospect of improved engines calling for universal distribution of anti-detonation gasoline in the course of the coming years there will be need for all that can be supplied by every branch of the industry.

DRESSER

"Of the thousands of miles of high pressure natural gas trunk lines in use, it is conservative to say that more than 75 per cent of those of plain-end pipe are connected with Dresser Couplings."

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BRADFORD PENNA.

Technical Questions Answered

By DR. C. K. FRANCIS, TECHNICAL EDITOR

The Question and Answer Department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation.

Those connected with the marketing departments and others interested in the utilization of petroleum products are also invited to take advantage of the new service.

Questions should be submitted in as much detail as possible so as to assure a satisfactory answer.

MOTOR NATURAL GASOLINE (BLENDS)

What kind of gasoline is this? We are using 58-60 U. S. Motor, but this Motor Natural Gasoline (Blends) has much higher test and the same end point, but for less money. Would you recommend this gas instead of U. S. Motor?—N. D.

Motor Natural Gasoline (Blends) was originally a name suggested by the Association of Natural Gasoline Manufacturers for a gasoline made by blending naphtha and natural gasoline. The high gravity, 60 to 70, insures a low initial, consequently easy starting of the motor. The end point, 437 to 450, is not too high, provided the naphtha has been fully refined and that the blend is free from objectionable gum-forming and corrosive substances.

Most of the gasoline marketed as U. S. Motor gasoline is so much better than the specification requires that it would be necessary to answer your question with a number of assumptions. U. S. Motor has no gravity requirement, the initial is high and the end point is often controlled by the 90 per cent point. Aside from the 90 per cent point the ordinary gasoline marketed as U. S. Motor has but little resemblance to the product specified by the Government. With the high gravity, low initial, satisfactory end point and purity of the Motor Natural Gasoline (Blends), you will probably find it more satisfactory than a gasoline which adheres to the requirements for U. S. Motor gasoline.

GREASE CORROSION

What causes greases to corrode? Is there any simple test to show that a grease will corrode?—P. C. A.

Grease may contain many substances besides a petroleum base, which often contain water, acids, salts, sulphur and other chemicals of a corrosive nature. The grease maker usually is on the watch for such material so that the product will be free from acids, etc. Water is often troublesome. A brightly polished piece of copper or a copper plate, spotted or partially immersed in the grease for several days, should not be tarnished nor pitted. A positive test indicates the presence of corrosive material.

TANK CAR SPECIFICATIONS

What are the principal specifications for Class III tank cars? What are the other classes?—L. E.

Tank cars are classified principally on the basis of construction, age and service. Those built since 1917 for general service are known as Class III cars, built according to regulations of the Master Car Builders.

The principal specifications are construction, material and bursting pressure. They must withstand a pressure of at least 300 pounds and must be built of material, boiler plate steel, which meets the standards of the American Society for Testing Materials. The Interstate Commerce Commission has established safety regulations which apply to these cars and to the products handled.

Details of the specifications may be obtained from the Interstate Commerce Commission, Washington, D. C., and the American Railway Association, 30 Vesey St., New York, or 431 S. Dearborn St., Chicago.

The other classes, I and II, are older cars, built prior to 1917, and which do not comply with the specifications laid down by the American Railway Association.

FULLERS EARTH

Do most refiners use fullers earth in refining lubricants? Has it other uses in the refining business? How nearly pure must it be?—T. G.

Refiners making a complete line of lubricating oils use fullers earth. When color is not essential it is not necessary to filter the oil. It is also used for clarifying gasoline and kerosene and for this purpose may be contacting or filtering. Vapor phase treating requires that the vapors pass through a body of fullers earth. The contact process combines a neutralizing quality in addition to the removal of color forming bodies.

As fullers earth is valued for its power to remove color, and as this property is based on purity, the earth should be free from impurities especially water, loam and sand. No organic matter should be present. Moisture and organic matter are removed by the burning process.

FIXED GASES

What are fixed gases?—O.C. B.

This is a term commonly applied to natural gas and refers to the very light hydrocarbons such as methane, ethane, etc., nitrogen, oxygen and carbon dioxide. They are fixed in the sense that they are gases at ordinary temperatures. Of course, they contain no gasoline. Butane, boiling at 34 degrees Fahrenheit, and pentane boiling at 97 degrees Fahrenheit, are the lowest hydrocarbons which may be present in gasoline.

CRACKED AND NATURAL GASOLINE BLENDING

Is it a fact that new compounds are formed when natural gasoline and cracked gasoline are blended? Do the unsaturated bodies of the cracked stock become saturated with the lighter products which are present in the natural gasoline?—G. C. D.

These questions suggest a chemical change and so far as our knowledge goes there is no evidence of a chemical change when blending these stocks. The blend is a simple mixture. If there were chemical combinations there would be temperature and volume changes, especially increase in temperature.

The light substances in natural gasoline are usually saturated by hydrocarbons, and as there are no free elements or groups present it would be impossible for a direct union with the unsaturated bodies to take place.

GASOLINE SUBSTITUTES

Are there any liquids which are extensively used in place of gasoline for motor fuel?—H. B. O.

Benzol and alcohol are used. Benzol is used quite extensively in Germany where the motors are especially adjusted. France is reported to advocate the mixture of alcohol and gasoline. Special efforts are being made in Australia to encourage, and to some extent enforce, the use of more alcohol as a means to encourage the starch producing industries.

FLUE GAS

Gas contains:

CH_4—	93.9%
O—	0.4%
N—	5.7%
	100.0%

How much CO_2 will be present in the flue gas when this gas is burned?—J. G. F.

The reaction necessary is $CH_4+2O_2=CO_2+2H_2O$, or methane+oxygen (from air)=carbon dioxide+water or steam+nitrogen (from air). According to Avagadro's Hypothesis, equal volumes of all gases contain the same number of molecules. In this example one volume of methane combines with two volumes of oxygen to form one volume of carbon dioxide and two volumes of steam.

This is according to theory, but under the conditions existing in a furnace there cannot be the intimate contact of the molecules necessary to bring about complete conversion or combustion. It is, therefore, always the practice to use an excess of air. No temperatures are given in this question so, for purpose of making the calculation, it has been assumed that the water is in the form of steam. No correctives for temperature and pressure have been considered.

The analysis may be considered on the basis of cubic feet, according to the reaction; 93.9 cubic feet or 1 volume of methane requires 2 volumes of oxygen, or $93.9\times2=187.8$ cubic feet. Deducting 0.4 oxygen present in the gas, leaves 187.4 cubic feet required.

187.8—0.4=187.4 oxygen required

$187.4\times79/21=704.8$ nitrogen in the air for 187.4 oxygen.

704.8+5.7=710.5 total nitrogen.

1 vol. CH_4=1 vol. CO_2, or 93.9 cubic feet CO_2.

2 vols. steam produced=187.8 cubic feet H_2O.

The final gas will have the following composition:

Nitrogen	710.5 cu. ft.
Carbon dioxide	93.9 cu. ft.
Steam	187.8 cu. ft.
Total volume	992.2 cu. ft.

Then

$$\frac{9.39\times100}{992.2}=9.26\%\ CO_2.$$

POLYMERIZATION

I am informed that changes in color and other properties of oils have been brought about by the formation of polymerides. Kindly give me the explanation for this and outline the process.—B. H. F.

Polymerization is a chemical change by which a new compound is formed whose molecular weight is a multiple of that of the original substance. Formaldehyde, H CHO, is a gas at ordinary temperatures with a very pungent odor. It is commonly used as a 30 to 40 per cent water solution, known as formalin. When this solution is evaporated the formaldehyde is converted into a white solid, known as paraformaldehyde, $(H\,CHO)_2$. This is a polymeride, and has the same percentage composition as the original substance. It was thought that such new compounds having the same relative composition as the parent substance, were produced by the accumulation of several molecules of the first substance. However, a polymeride may be formed having no relation to the original and which cannot be converted to the original substance as can paraformaldehyde.

Polymerization takes place without gain or loss in weight. There is little evidence that the changes in color of oils may be due to polymerization. It is known that certain nitrogen, sulphur and oxygen groups produce color. Hydrogen added direct or replacing oxygen causes loss of color. The aromatics produce more colored bodies than the paraffins. Under modern refining conditions small quantities of aromatics are present in many petroleum products. These suggestions may have more serious application than the process of polymerization.

Smith and Cooke of the U. S. Bureau of Mines in a study of gum-forming compounds demonstrated the presence of aldehydes in gasolines. The quantity of aldehydes were in proportion to the per cent of unsaturation and to the gum formed on evaporation. The quantity of gum was increased by oxidation, blowing air through the sample. They concluded that the gum-forming bodies were oxidized to aldehydes, or in other words, the gums were polymerized aldehydes probably formed by the oxidation of olefins, etc. While color may be likewise explained, this is not a case of pure polymerization, but one of oxidation.

ACID RECOVERY

Will you please explain the chemical principles involved in the recovery of acid sludge?—A. C. R.

The recovery of sulphuric acid from refinery sludge acid requires the separation of carbon, asphaltic material, oil, and water from the acid. It is a combination washing and concentration proposition.

The old methods involved concentration in lead pans, cast iron pans and retorts, also glass retorts. The strength of the acid recovered by these methods seldom exceeded 60 degrees, except in the case of the lead pans method, when higher concentration were obtained. The modern methods are more efficient and include the blowing of hot air through the weak acid. The apparatus is arranged somewhat like a tower and the acid is concentrated in two stages. The first concentration produces an acid of about 55 to 58 degrees. The second tower, or second stage, gives a product which may vary from 62 to 66 degrees, according to the desire of the operators.

The two stages are similar. The concentration being accomplished by conducting heated air, 1,000 to 1,200 degrees Fahrenheit, into the mixture which is held in a chamber of acid-proof masonary. The air bubbling through the weak acid drives off the water in the form of steam. The operation is continuous.

SWEETENING AND ANTI-KNOCK VALUE

We recently had our attention called to some gasoline of superior ante-detonating characteristics which was not doctor sweet. We were told that to have made this gasoline doctor sweet would have lessened its anti-knock value. Is this true?—J. W.

The anti-knock value of the ordinary gasoline, a cracked product, is considered to be based largely on the presence of aromatics and olefins. These are removed or decreased by the acid treatment, while certain sulphur compounds are removed by the sweetening operation. The doctor test is used for the purpose of detecting sulphides, which have a corrosive action on the parts of the motor. It is not known that they have any anti-knock value. See our issue of April 29.

Increasing the Efficiency of Modern Refining Methods

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Oil-coke residue in its raw form from the cracking stills has practically no value. Converted into briquettes by the Fernholtz Process it immediately increases in value to a point where the profit is consistent with its true fuel content. Fernholtz Briquettes are superior to anthracite coal, in fact, are far superior to any other type of fuel and are readily marketable. Let us show you how this process can be adapted to your refinery.

Up to 25c per barrel additional profit is available to refineries using the Fernholtz Process.

The Fernholtz Process can be adapted to every oil refinery using a modern cracking process, turning into substantial profit what is now an almost entirely waste product. We shall be pleased to furnish full data to refining engineers.

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Incorporated
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No binder is required. The Briquettes are durable, will not deteriorate and have highest fuel value.

Fernholtz
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Texas Panhandle the Feature of Week

Increases Production to 17,000 Bbls. Daily With Several Good Completions. Dixon Co. Well Tanking 4,500 Bbls.

A further increase in production in the Texas Panhandle to 17,000 bbls. daily and the report that the Gulf Co. and Marland are each planning 25 new locations in Hutchinson County, together with the completion of the Dixon Creek Oil Co.'s No. 1 Smith, 7 miles south of the river, starting at 250 bbls. an hour when drilled 3 feet deeper and tanking 4,500 bbls. in 24 hours, summarizes the news from the new field. Several other good wells were drilled in or gave indications of exceptional promise.

In Oklahoma, the Comar Co. got a 130-bbl. an hour well in the shallow sand in the South Braman Pool. The Sinclair Co.'s No. 32 Hartley, at Garber, made 150 bbls. hourly from 2,716-20 feet.

Louisiana is greatly interested in a wildcat play along the Caldwell-Angelina flexure from Caldwell Parish, Louisiana, to Angelina County, Texas, on which at least 75 tests are to be drilled this year.

Hope of an extension at Boling Dome was dashed by the J. K. Hughes' No. 1 Mullins proving a salt water well.

The Shell Co.'s No. 6 Edison at Ventura Avenue, California, made 3,700 bbls. from 5,485 feet.

Oklahoma

A well in the Stalnaker sand at South Braman, the Comar Oil Co.'s No. 2 Lawrence, started flowing at the rate of 130 bbls. an hour. The first day's gauge was 2,998 bbls.

The Sinclair Co.'s No. 32 Hartley in the Garber Field, flowed 150 bbls. hourly from the lower Hoover sand. The Roxana Corp. has the largest daily deep sand production for the week at Garber and the Sinclair Co. next.

The aggregate deep sand production of the Tonkawa Field passed the 30,000,000 mark in the past week. This came from 128 wells with 124 now producing. The daily average for the week was 26,109 bbls.

Kansas

Forty new locations in the Kansas fields measured the increase in drilling activity particularly in the Golden Lane region of Greenwood County and in Lyon County, Chastain & Chastain have a rainbow showing of oil in No. 1 Custer, Section 7-27-1.

East Central Texas

The Pure Oil Co.'s No. 1 Stockton, near Groesbeck, has been making 100 bbls. daily since drilled in.

North Texas and Panhandle

The Panhandle production has risen to 17,000 bbls. The Gulf and Marland companies are planning 25 new locations each.

The Dixon Creek Oil Co.'s No. 1 Smith, Block Y, Hutchinson County, south of the river, deepened 3 feet, started flowing 250 bbls. an hour and tanked 4,500 bbls. the first 24 hours. It is 7 miles south of the Gulf Co.'s No. 6 Dial, north of the river, which on Monday was making 1,585 bbls.

The Canyon Oil Co.'s No. 3 Whittenberg flowed 60 bbls. an hour. Holmes' No. 1 Smith Caper is estimated at 500 bbls. Marland's No. 1-B Burnett, Carson County, has 2,100 feet of oil in the hole.

Roeser & Pendleton and Marland's No. 4-A Cook, in the shallow pool, Shackelford County, flowed 40 bbls. an hour. Humble's No. 1 Maddox, Montague County, flowed 300 bbls. in 22 hours. The Dixie's test on the Crane-Upton County line, has discovered oil.

Louisiana-Arkansas

Louisiana is to have its biggest wildcat play along the Caldwell-Angelina flexure running through Caldwell, La Salle, Grant, Winn, Nachitoches, Sabine and Vernon Parishes into Angelina County, Texas. J. E. Smitherman and E. G. Palmer have reported to have obtained 60,000 acres of leases in Winn, Grant and Natchitoches Parishes, while the Humble company has blocked 46,000 acres around Packtown. Oil men predict that 75 tests will be drilled along the flexure during this year.

The Arkansas Natural Gas Co.'s No. L C. W. Lane, Caddo Parish, blew in from the Trinity horizon making 45,000,000 feet of gas rich in gasoline content. It is an offset to the Gulf's No. 17 Lane.

Urania is leading all other pools, surpassing Lisbon in Arkansas, which has again been extended.

California

Wildcat operators are busy but without yet discovering any assured new production. Another test is to be put down at Seal Beach. Manhattan Hermosa Beach is getting a play. Wildcatting in the San Joaquin Valley encourages the belief that this district may prove California's next field. Meanwhile deepening and extension work is getting considerable attention, although operators are inclined to hold down actual drilling for a more favorable time. It is still too early to say what effect the deep zone at Long Beach may have. Stringent ordinances are delaying operations in the town lot development at Huntington Beach.

The Shell Co.'s No. 6 Edison, in the Ventura Avenue Field is making 3,700 bbls. of 30 gravity oil, and 3,500,000 feet of gas, completed at 5,484 feet.

Gulf Coast

The J. K. Hughes Development Co.'s No. 1 Mullins at Boling Dome was reported in a sand and hopes were entertained it might extend the field 1,500 feet west but it proved a salt water well at 3,170 feet and a keen disappointment. There are nine producers in the pool which is more than ever in doubt.

The Rycade Corp. is to test sands at 4,040 and 4,344 feet on the Nash Dome, 7 miles east of Damon Mound.

Rocky Mountains

The Texas Company is reported arranging to purchase a half interest in the Wyotah company's holdings in the La Barge Field and will also lay a pipe line to a rail connection when the production reaches 2,000 bbls.

The Cane Creek, Utah, well of the Midwest company is still having trouble with the water shut off. A theory is advanced that the Utah structures in Cane Creek and Shafer Domes are salt domes.

At Sunburst, in addition to the Queen City Co.'s well, estimated at 2,000 bbls., that caught fire, the Fulton Oil Co. got a well on the east side of the field estimated at 3,000 bbls.

Canada

The Edmonton-Wainwright No. 1 is estimated at 150 bbls. or better, the best completion in the Irma-Wainwright Field. The gas pressure is reported heavier and the quality of oil finer, being about 19 or 20 degrees.

Mexico

Of 19 completions in Mexico, nine were producers, all in the northern fields, and 10 failures, one in the south field. The new production is estimated at 13,600 bbls. flush.

Southwest Texas

The Houston Gulf Gas Co.-W. F. Morgan's No. 4 Palacious, in the new Randado Pool, is arousing much interest. It came in gauging 250 bbls. in an hour and 15 minutes. The new pool is believed certain to lead to further wildcatting to the south.

W. O. Wheatley's completion in the Edgington Pool directs attention to the fact that there is now a square mile with wells at each corner, the center of which is not drilled.

Gas wells spraying a little oil in the Cole Field of Webb County, have caused consultation as to methods for drilling new tests.

New Mexico

The production of the Artesia Field, according to pipe line reports, has been 1,200,000 bbls.

Central West

Showing in a Knox County, Indiana, well is considered likely to be followed by renewed activity in the Allendale Field of Wabash County, Illinois, 2 miles east.

Eastern Fields

Southeastern Ohio counties, notably Holmes, are being tested to prove leases and enough territory is being found productive to assure ample room for development when market conditions warrant.

Ohio Fuel Gas Co. is starting a number of tests for gas in the Niagara lime in Guernsey County, Ohio.

Clay County and Putnam County developments in West Virginia continues to make good showings.

Kentucky-Tennessee

The test of A. A. Alexander and others near Willow Grove in Clay County, Tennessee, is estimated at 500 bbls. and opens a second pool in that county where 10 wells are now drilling.

Improved weather is increasing the operations in western Kentucky. In the eastern district impassable roads delayed completions.

Michigan

Extension of the operations in the Saginaw Field has now reached the town lot leasing stage. The State geologist is quoted as saying the business section of the city may lie over the oil pool.

Late News From the Fields

OKLAHOMA

Another well in the Garber Field swelled that pool's production. It was the Sinclair Oil & Gas Co.'s No. 29-L Hartley, which started flowing at 250 bbls. an hour from sand at 2,698-2,732 feet. No. 32-H Hartley gauged 4,560 bbls. for the 24 hours ending at noon Tuesday. The Hartley lease is the northwest quarter of Section 18-22-3w.

The Southwestern Petroleum Co. is reported to be sold to The Texas Company for a consideration reported at $15,000,000. The Southwestern company has a daily production of 6,000 bbls. and 65,000 acres of prospective leases and also owns a half interest in the royalty under the valuable Hartley lease in the Garber Field.

Four miles northeast of the Ingalls Pool in Pawnee County the Marland Oil Co. has a good Wilcox sand well in No. 1 Mocibus, SE cor. NW, Section 33-20-5. Sand was 3,706 37 feet and the well flowed 435 bbls. naturally. It was shot and began to flow at the rate of 40 bbls. an hour.

VENEZUELA

British Controlled Oilfields, Ltd.'s No. 104, in the El Mene Field, Venezuela, drilled by Standard Oil Co., of New Jersey, has been completed with initial production of 1,000 bbls. daily. No. 105, El Mene, also completed, is flowing 250 bbls. daily initial, and Palo Seco No. 1, in the Trinidad Field, flowing 400 bbls. daily initial.

Production in February totaled 140,523 barrels and shipments 131,980 bbls. Production in week ended March 17 totaled 47,990 bbls., in week ended March 24, was 52,979 bbls. and in week ended March 31 totaled 54,790 bbls. Shipments in the three weeks were 33,835 bbls., 33,233 bbls. and 51,336 bbls., respectively.

EAST CENTRAL TEXAS

CORSICANA, Tex., May 11.—The closely observed Transcontinental Oil Co.'s No. 1 Ross, in the Nigger Creek district of Limestone County, is drilling ahead at a depth of 2,835 feet. The pipe was lowered to shut off the salt water, and the test will be deepened. The showing of oil encountered in this well was the occasion of much interest owing to its proximity to the Mexia Field.

In Falls County, Heflin and others' No. 1 Kelsey, on the Basquez Survey, has been temporarily abandoned at 3,003 feet.

In Limestone County, J. D. Sweeney and others' No. 1 Wright, on the McNulty Survey, made 50 bbls. daily on the pump from sand 1,276-81 feet. Magnolia Petroleum Co.'s No. 8 Desenburg, Varala Survey, made 35 bbls. from a depth of 2,958 feet. Reiter-Foster Oil Co. and others' No. 1 Delong, on the Varala Survey, cored salt water at 2,812 feet and 2,828 feet.

In Navarro County, Kerr & Gillete are taking a core in No. 1 Slaughter in the Dabney Survey, at 2,863 feet.

CALIFORNIA

LOS ANGELES, Calif., May 11.—The Shell Co.'s No, 6 Edison, in the Ventura Avenue Field, finished at 5,484 feet, is making 3,700 bbls. of 30 gravity clean oil and 3,500,000 feet of gas daily.

GULF COAST

HOUSTON, Tex., May 11.—Hughes Development Co.'s No. 1 Mullin, at Boling Dome, is a salt water well at 3,170 feet. It is a disappointment.

Gulf Production Co.'s No. 9-B Kishi-Lang, in the Orange Pool, is flowing 1,800 bbls. at 4,750 feet.

The Humble Oil & Refining Co. has decided to enter the Mirando Field as a buyer of crude in competition with the Texpata Pipe Line Co., Crown Central Petroleum Corp., Magnolia Petroleum Co. and a few other independent refineries. James Anderson, vice president of the Humble company, and R. V. Hanrahan, president of the Humble Pipe Line Co., have returned to Houston after making a survey of the situation.

The Humble Pipe Line Co. has started laying 15 miles of 6-inch line from the tank farm near Bruni, on the Tex-Mex Railway, southwest to the Henne, Winch & Fariss district, in Jim Hogg County. Four-inch connections will be laid to the new Randado Field and connections will also be made with the Mirando City-Schott, Wolcott, Mid-Ojuleos and Aviator districts in Webb County.

The Humble Oil & Refining Co. is building two 55,000-bbl. steel tanks at Bruni storage farm and material is on the ground for more. The purchases of the Humble company will be shipped in tank cars to Baytown refinery from Bruni. The Crown Central Petroleum Corp. handled approximately 438 tank cars from Mirando City to its refinery at Pasadena on the Houston ship channel during April. The contract price to be paid by the Humble company for crude purchased has not been announced. The Texpata Pipe Line Co. and Magnolia company post $1.15 for Mirando crude and the Crown Central Co. $1.20. The latter is the largest buyer in the field. The crude has a good lubricating content.

Panhandle Well Tanks 4,500 Bbls. Day

Dixon Creek Co.'s No. 1 Smith, Hutchinson County, South of River, Deepened 3 Feet, Starts Flowing 250 Bbls. Hour

By C. D. Lockwood
Staff Correspondent, North Central Texas

FORT WORTH, Tex., May 10.—Another record-breaking natural well in the Panhandle Field of Texas boosted the daily output of that amazing area above 17,000 bbls. during the past week and caused a general upward revision of estimates that have been made on the probable peak production of the Hutchinson - Carson district within the coming three months. Pity the poor "dopester" or petroleum statistician who must turn in a report estimating the future vagaries of an area where locations are being made by the dozens and where such wells as the Gulf Production Co.'s recent gusher north of the Canadian River and this new one, south of the river, are apparently but indications of what is to follow. The Gulf well referred to is No. 6 Dial or Perkins and on Monday of this week it gauged 1,585 bbls., having not yet fallen below 1,450 bbls. any day since it was completed nearly two weeks ago for 1,600 bbls. The Gulf is staking 25 new locations in the Panhandle although the foot measurements have not yet been given out. The Marland Oil Co. has also authorized the drilling of a similar number of new wells, most of which will be in Hutchinson County.

The record-breaker referred to is the Dixon Creek Oil Co.'s No. 1 Smith in Section 14, Block Y, some 7 miles south of the Gulf's big producer. It was originally completed April 6, 1925, in oil pay at 2,947-60 feet and was deepened 3 feet May 5 when it started flowing 250 bbls. an hour naturally and actually tanked 4,500 bbls. in its first 24 hours. Early this week the Canyon Oil Co.'s No. 8 Whittenburg in Section 12, Block Y, M. & C. survey, was flowing 60 bbls. an hour naturally from sandy lime at 2,773-76 feet, and Holmes' No. 1 Smith-Capers in the same section was estimated to have made 500 bbls. in the first 12 hours following a 270-quart shot at 2,725-75 feet.

In Carson County, the Marland Oil Co.'s No. 1-B Burnett, an important test, had 2,100 feet of oil in the hole from granite and was shut down for storage. The total depth is 3,090 feet. A location has been staked for a new Marland well on the S. B. Burnett estate, 450 feet west and south of the NE cor. of Section 105, I. & G. N. survey, but has not yet been given a number.

The Phillips Petroleum Co.-Gibson Oil Co. and McMillan's No. 1 Whittenburg, Hutchinson County, was drilled to 2,945 feet, where it showed a little salt water. It was then plugged back to 2,942 feet and shot with 40 quarts, after which the output jumped to 489 bbls. The McMan Oil & Gas Co.'s No. 3 Smith was shot with 360 quarts in lime pay at 2,721-85 feet and made 42 bbls. an hour afterward for the first 12 hours. It had been doing 200 bbls. daily.

Shackelford Producer

Outside of the Panhandle district, the most important developments in the North Central Texas district during the past week occurred in Shackelford, Montague and Upton Counties. In the former county, an excellent producer was added to the phenomenal shallow pool on the Cook Ranch, and the Amerada Petroleum Corp. appeared to be proving up considerable productive acreage with its extension test about three-quarters of a mile to the south, although it was thought to be only on top of the Cook sand, so-called. Montague County came into the calcium glare as a result of a completion which is exceptionally good for Montague County, although it made but 300 bbls. in 22 hours, and Upton County's claim to attention arose from the discovery of oil in the Dixie Oil Co.'s test near the Crane-Upton County line, about 5 miles northwest of the Burleson Pool and about three-quarters of a mile southeast of the Independent well across the line in Crane County.

To present the details in order, in Shackelford County the Roeser & Pendleton and Marland Oil Co.'s No. A-4 Cook in Section 84 started flowing at the rate of 40 bbls. an hour last Friday from the 1,200-foot sand. No. A-1, in Section 85, was holding up to 520 bbls. and No. A-1 in Section 84 was making 690 bbls., while No. B-1, Section 85, owned by Roeser & Pendleton, was still producing about 1,200 bbls. The Humble well on the Cook Ranch was also flowing about 305 bbls. The Amerada Petroleum Corp.'s No. 1 Cook in Section 85 went through a gas sand at 1,304 feet carrying about 4,000,000 feet of gas and spraying 15 bbls. of oil. Shale was found at 1,304-18 feet and at total depth of 1,320 feet it was thought to be on top of the Cook sand. Another joint of 5-inch was being reamed down.

In this county, the Hope Petroleum Co.'s No. 1 Davis swabbed 58 bbls. in 7 runs and the casing was lowered to the top of the sand at 1,472 feet.

Montague Completion

The Mantague County well referred to is the Humble Oil & Refining Co.'s No. 1 Maddox. It had gas and oil sand at 888-98 feet and was drilled to 924 feet, then plugged back to 903 feet, from where it flowed 100 bbls. in 7½ hours and about 300 bbls. in 22 hours. There was about 20,000,000 feet of gas with the oil and the gravity tests 23.5 degrees.

Upton County Test

The Upton County well mentioned is the Dixie Oil Co.'s No. 1 Hughes on the Teel survey. Monday it was drilling at 2,090 feet in hard lime and had 1,600 feet of oil in the hole. The top of the lime was at 1,981 feet and top of the oil pay at 2,067 feet. This well made half a bailer of salt water every three hours at 2,055 feet and is said to be the first well in this region finding salt water above the pay. The oil in the hole had increased 600 feet from 2,084 to 2,090 feet. The Tidal Oil Co.'s well in Upton County in Section 2, Block 2, topped the first brown dolomite at 2,015 feet.

In Crane County, the Magnolia Petroleum Co.'s No. 1 University produced 75 bbls. of oil and 1 bbl. of water on May 5 and 50 bbls. of oil with 14 bbls. of water on May 6.

In Crockett County, the Marland Oil Co.'s No. 1 J. S. Todd had a sand at 1,495-1,500 feet which yielded three half bailers of oil an hour with no water Monday. The Gulf Production Co.'s No. 1 Powell swabbed 60 bbls. Monday from total of 2,678 feet and was to be shot. The Humble Oil & Refining Co.'s No. 4 Powell was drilling at 2,580 feet.

In Baylor County, the Pandem Oil Co.'s No. 1 Young, which was acclaimed last week as opening a new area, was deepened to 1,419 feet but had to be plugged back to shut off water. The oil sand at 1,410-12½ feet is now estimated good for 5 bbls. daily with some water. Another sand at 1,415-19 feet contained a good showing of oil but considerable water and the hole will be plugged back off the lower sand.

In Young County, the Booth Oil Co.'s No. 2 Graham had oil sand at 1,102 05½ feet and pumped 12 bbls. with no water.

In Archer County the Atlantic Oil Producing Co.'s No. 5 Rachuig is estimated good for 60 bbls. of oil when put on the pump. It had 700 feet of oil in the hole from sand at 1,169-75 feet. Golding & Cochran bailed a little salt water from their No. 1 O'Donnell from oil sand at 1,290-94 feet. The Texas Company's No. 12 Jeske was abandoned at 1,168 feet after drilling dry sand at 1,163-67 feet.

Completion Report

Roberts County

Phil Engle's No. 1 Mrs. Ledrick & Sons, temporarily abandoned at 4,017 feet.

Hutchinson County

McIlroy Brothers and others' No. 3 H. E. Smith and others made 450 bbls. in 24 hours from sand at 2,805-72 feet. The Phillips Petroleum Co., Gibson, McMillan and others' No. 1 J. A. Whittenburg flowed 240 bbls. from sand at 2,880-88 feet and 2,897-2,914 feet.

Potter County

The Prairie Oil & Gas Co.'s No. 1 Lee Bivins, was a 20,000,000-foot gasser from sands at 2,055-60, 2,130-80, 2,180-2,200, 2,370-90 feet, total depth being 3,485 feet.

Carson County

The Amarillo Oil Co.'s No. 3 Bivins-B sprayed 75 bbls. from sand at 3,072-3,100 feet. J. S. Cosden's No. 1 S. B. Burnett estate, was a 50,000,000-foot gasser in sand at 2,240 to 2,600 feet, total depth 2,820 feet.

Collingsworth County

The Continental Oil Co. and others' No. 1 Hughes estate, was dry and abandoned at 3,508 feet.

Wichita County

Brader and others' No. 3 Jennings was good for 20 bbls. initial from sand at 1,558-93 feet and 1,604-09 feet. Bridwell & Heydrick and Moore's No. 3 Waggoner Brothers was dry and abandoned at 1,562 feet. The Humble Oil & Refining Co.'s No. 4 Waggoner "D" made 6 bbls. at 586-93 feet. Larkin & Wilson's No. 1 Waggoner Brothers was abandoned as dry at 830 feet. Parsons & Rankins' No. 1 Payton was another duster at 2,116 feet. Perkins & Cullum plugged their No. 1 Burnett at 1,950 feet. The Ryan Petroleum Co.'s No. 61 Nance was a 12-bbl. well at 1,300-31 feet and No. 62 Nance made 20 bbls. at 1,297-1,332 feet. The Texhoma Oil & Refining Co.'s No. 8 Burnett "E" was dry and abandoned at 1,947 feet and the White Brothers' No. 3 Mitchell "B" was also a duster at 2,025 feet.

Wilbarger County

The Castlebury Farm Oil Co.'s No. 8 Castlebury was dry and abandoned at 910 feet. The Humble Oil & Refining Co.'s No. 8 Waggoner "H" made 60 bbls. at 1,860-81 feet, total depth being 1,890 feet; No. 9 Waggoner "H" was a 35-bbl. completion at 1,867-82 feet, total depth 1,883 feet. The Milham Corp.'s No. 2 Waggoner "H" was temporarily abandoned at 2,483 feet; No. 5 Waggoner "H" was good for 35 bbls. from sand at 2,539-46 feet; No. 7 Waggoner "H" was a 155-bbl. well at 2,309-13 feet; and No. 6 Waggoner "L" flowed and swabbed 455 bbls. from sand at 1,884-98 feet. The Phillips Petroleum Co.'s No. 5 Waggoner "G" made 50 bbls. at 2,582-2,600 feet; No. 2 Waggoner "QQ" was good for 270 bbls. from sand

(Continued on Page 142)

NEW FAULT LINE POOL WELL SOUTH OF MEXIA MAKING 100 BBLS. DAILY

MEXIA, Tex., May 10.—The Pure Oil Co.'s No. 1 Stockton, in the Andres Varella Survey, about 3½ miles northwest of Groesbeck, Tex., which is believed to have opened a new fault line pool about 5 miles southwest of the southern end of the Mexia Field, is standing full of oil from the Woodbine sand and has been averaging about 100 bbls. daily. The gas accumulates and pushes about 5 bbls. of oil from the hole every hour and a quarter.

Left to right—J. H. McCarty, old-time Pennsylvania operator who had faith in the Groesbeck area for past five years; J. R. Christian, rotary driller, who drilled well to within 15 feet of oil sand last August; D. S. Tetrick, cable tool driller, who drilled into the oil pay; J. M. Bower, district superintendent The Pure Oil Co. Photo taken at Pure Oil Co.'s No. 1 Stockton.

The driller, D. S. (Doc) Tetrick, says the pay formation is brown sugar sand, extremely porous. The fact that the well has been producing gas for about eight months from sand only 15 feet above the present pay streak is significant in considering the gas pressure now associated with the oil. A couple of weeks ago the gas, which was originally gauged at about 1,000,000 feet, ceased and the tools were run to try to bring back the gas when oil was found in the hole. The well was slowly deepened with the resultant discovery of this pay sand.

There is a plenty of room in the immediate vicinity for a new pool in spite of some 4,400-foot tests nearby. Remembering how closely Powell and some other fault line pools were missed in days gone by it is entirely possible for a sizeable pool to be found in this vicinity, although drilling will have to proceed cautiously to find it. Drillers say sand conditions in this area are just as favorable for production as at Mexia, also, a thickness of 75 feet of sand and shale in the Woodbine zone having been encountered in one of the deep dry holes.

In the meantime, local people and others impatiently await a little action at the Stockton well. The bailer has not been run during the past week and the shale above the pay is thought to be caving to some extent.

NATIONAL

OVAL GEAR PUMPING ATTACHMENT

THE NATIONAL SUPPLY COMPANIES

Using Up Current Crude Oil Supply

First Quarter of Year Shows Decrease of 500,000 Barrels in Stock of 543,000,000 Barrels of All Products

By Charles E. Bowles
Petroleum Analyst, The Oil and Gas Journal

Regardless of local conditions—and during the same month these may be very good in one part of the country and very bad in another—the industry must be viewed in its entirety if the underlying conditions that are reflected in basic tendencies are to be understood.

Today there is a widespread feeling in the industry that "general conditions are good"—and probably there is no better evidence of the present fundamental soundness of the industry than the following tabulation which shows the monthly increases and decreases in the total stocks of crude and refined for the entire United States.

Month—	1925	1926
January	3,731,000	*795,000
February	6,142,000	362,000
March	7,899,000	*52,000
Total	17,772,000	*485,000

The fact that in the first three months of 1925 the total stocks of the United States were increased by over 17,000,000 bbls. while during the first three months of 1926 they were decreased by almost 500,000 bbls., is the great outstanding fact back of the present situation.

Field Results

At the end of March, 1926 there were 863 "rigs" in all of the oil fields of the United States—430 were in the Mid-Continent and 433 outside. And on March 31 there were 4,042 "drilling wells" in the United States, of which 2,029 were in the Mid-Continent and 2,013 outside.

During March 2,123 wells were completed—1,323 in the Mid-Continent and 800 outside. The "new wells" in the Mid-Continent brought in 127,000 bbls. of new production and the wells outside the Mid-Continent almost 86,000 bbls.

The following tabulation brings out a very significant fact, however:

	Mid-Continent	Outside
Wells completed	1,323	800
Oil wells	774	530
Dry holes	462	164

Outside the Mid-Continent, in March, about 20 per cent of the wells were dry holes—in the Mid-Continent almost 35 per cent were dry holes.

With no new major field assured today—and the almost certainty that any new big field, and especially one outside the "well-pipelined" area, could not be brought into large production before early fall—there is reason to believe that Graph 4 will not record a "bump" in 1926, as large as that of 1925.

Net New Supply

The net "new supply" of crude oil for March (domestic production plus imports minus exports) was 66,742,000 bbls. During the month 62,492,000 bbls. of crude (domestic and foreign) were run to stills. This left a difference of 4,249,000 bbls. which was either stored or burned as crude. It is, therefore, very probable that we are today actually "using up" all of our current supply of crude oil.

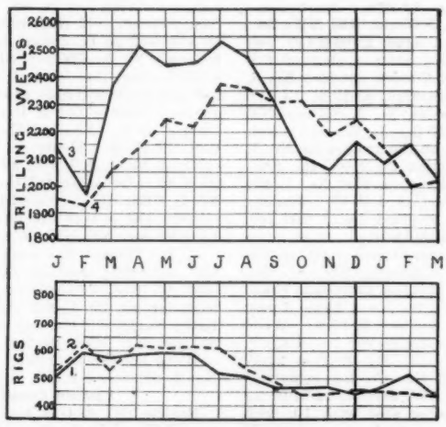
In 1925 gasoline stocks showed their first decline in April—a drop of 26,000,000 gallons from 1,747,000,000 gallons on March 31. On March 31, 1926 stocks sotod at 1,936,000,000 gallons, or about 11 per cent higher than a year ago. In the light of the yearly increase in gasoline consumption this 11 per cent increase in stock does not seem large but the fact remains that in March, 1926, as in March, 1925, there was too much gasoline in storage for the good of the price structure.

Revised Graph

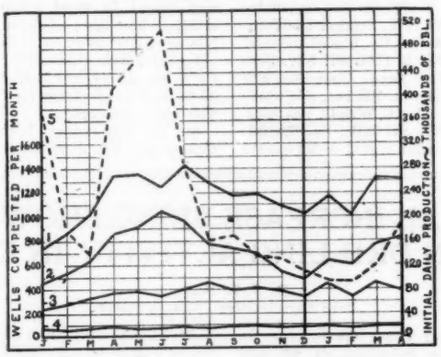
Graph 6 has been revised in accordance with the latest available figures of the United States Bureau of Mines—and previous graphs should be ignored. In comparing Line 1 (pipe line and tank farm) with Line 2 (crude at refineries) it is interesting to note that in the early months of 1925 while pipe line stocks were going up crude stocks at refineries were about stationary—and that during the last half of the year pipe line stocks went up and crude stocks at refineries went down. In the early part of 1926 pipe line and tank farm stocks went up and crude stocks at refineries went down.

However, between these two crude stocks the dotted line (all refined products at refineries) is the "balance of power"—and a glance at Graph 6 clearly shows that a far better conditions prevails today than during the early months of 1925. This graph is especially

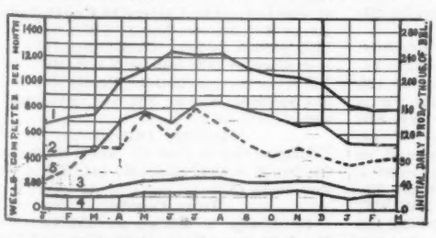
(Continued on Page 145)



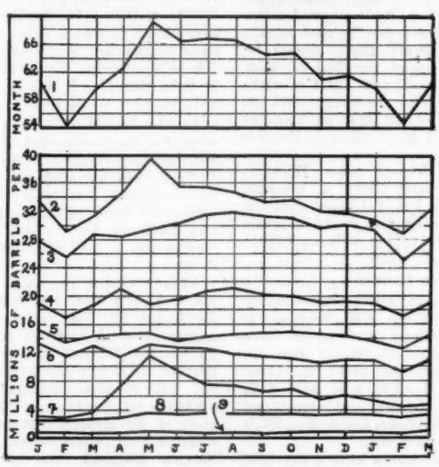
Graph 1, New Operations. Line 1, rigs in Mid-Continent. Line 2, rigs outside Mid-Continent. Line 3, drilling wells in Mid-Continent. Line 4, drilling wells outside Mid-Continent.



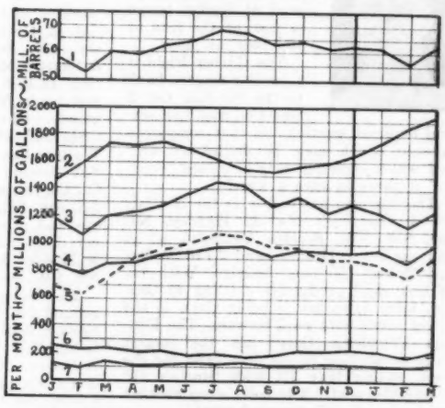
Graph 2, wells Completed in Mid-Continent. Line 1, total wells completed. Line 2, oil wells. Line 3, dry holes. Line 4, gas wells. Line 5, initial daily production (read scale right hand side.)



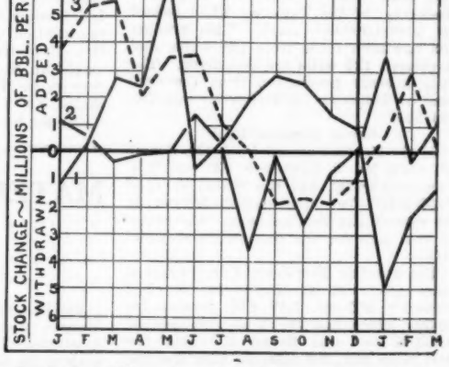
Graph 3, Wells Completed Outside Mid-Continent, including California. Line 1, total wells completed. Line 2, oil wells. Line 3, dry holes. Line 4, gas wells. Line 5, initial daily production (read scale right hand side.)



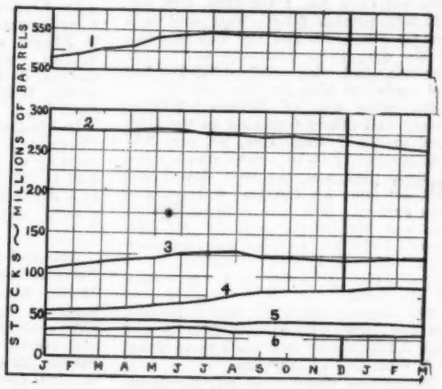
Graph 4, Production of Crude Oil. Line 1, total for the United States. Line 2, Mid-Continent. Line 3, outside of Mid-Continent, including California. Line 4, California. Line 5, Oklahoma. Line 6, Texas. Line 7, Arkansas. Line 8, Kansas. Line 9, Louisiana.



Graph 5, Refinery operations. Line 1, crude oil run to stills. Line 2, gasoline stocks. Line 3, fuel oil produced. Line 4, gasoline supply (production plus imports.) Line 5, gasoline demand (domestic demand plus exports.) Line 6, kerosene produced. Line 7, lubricating oil produced.



Graph 6, Additions to and Withdrawals From Stock. Line 1, pipe line and tank farm. Line 2, crude oil at refineries. Line 3, refined products at refineries. Please note each month is based on the zero line (0) and not on the preceding month.



Graph 7, Petroleum Stocks. Line 1, total stocks of crude oil and all refined products for entire United States. Line 2, pipe line and tank farm stocks east of California. Line 3, refined products at refineries east of California. Line 4, heavy crude oil and fuel oil in storage in California. Line 5, light oil in storage in California. Line 6, crude oil at refineries east of California.

Gusher Completed From Shallow Sand

Producer in Garber Field, Oklahoma, Makes 150 Bbls. Hourly. South Braman Well Makes 130 Bbls. Hourly

By J. L. Dwyer
Staff Correspondent, Oklahoma Fields

The more shallow sands had their day during the past week when a well in the Stalnaker sand at Braman helped to maintain the production of that pool, and a well in the lower Hoover sand at Garber began to flow at the rate of 150 bbls. an hour.

The Garber Field is a regular reserve bank to the Sinclair Oil & Gas Co., and has several hundred locations on that company's acreage which may be drilled at will, and which certainly may be called "proven" if there is such a word.

The big well at Garber is the Sinclair Oil & Gas Co.'s No. 32 Hartley, NE cor. SW NW, Section 18-22-3w, which had the lower Hoover sand 2,716-20 feet and flowed 150 bbls. hourly. With the Wilcox sand production settling at Garber, more attention is being given to the upper sands with good results. The Roxana Petroleum Corp. has the largest daily production in the deep sand for the week ending May 10, with Sinclair Oil & Gas Co. next. The daily deep average production for that period was:

Company—	Wells	Oil	Water
Franchot	1	210	0
Carter	2	112	90
Healdton	2	56	102
Marland-Mid-Continent	12	554	1,500
Roxana	17	16,113	3,750
Sinclair Oil & Gas	38	14,795	18,700
Total	73	36,830	24,142

An interesting note during the past week was that the aggregate deep sand production of the Tonkawa Field passed the 30,000,000-bbl. mark. This production has been made from 128 wells, and at present 124 wells are producing. The daily average production from the deep sand at Tonkawa for last week was 26,109 bbls.

South Braman Pool

In the South Braman Pool, the Comar Oil Co.'s No. 2 Lawrence, SE cor. NW Section 5-28-1w, had the Stalnaker sand 2,355-2,378 feet and started flowing at the rate of 130 bbls. an hour. The gauge on this well for the first day was 2,998 bbls.

The Roxana Petroleum Corp. has another good well at Garber in No. 7-H Shroeder, SE cor. NW SW, Section 18-22-3w, which had the Tonkawa sand at 3,005-47 feet and flowed 250 bbls. the first hour and 200 bbls. an hour for the next 15 hours.

The deep sand at Wewoka is making 26,500 bbls. daily from 13 wells. The only completion of the week is the Homa-Okla Oil Co.'s No. 1 Carolina, SW cor. NE NE, Section 6-7-8. This well is a quarter-mile south and one location west of the deep sand discovery well. The Carolina had the sand 4,112-18 feet and made 100 bbls. an hour initially.

Six miles east of Bristow, William Sherry and others found oil in the Glen sand in No. 1 Unallotted, SE cor. NW NE, Section 12-16-10. Sand was touched at 2,078 feet and the well flowed 100 bbls. an hour for the first 6 hours and then bridged. The hole is being cleaned out and the casing will be straight-reamed 1,000 feet, as there was that much open hole. This well is located in a region which is fairly well surrounded by dry holes.

The Jomack Oil Co.'s No. 2 Bruner, NE cor. SW NE, Section 27-17-8 had sand 3,121-26 feet and made three flows. It is estimated at 300 bbls.

On the lease which it recently purchased from M. P. Evans and others of Okmulgee, the Barnsdall Oil Co. has another well in No. 2 Morgan, SW cor. SE, Section 3-12-11. Sand was 2,624-42 feet and the well had an initial production of 410 bbls.

In Pawnee County, the Devonian Oil Co.'s No. 1 Dobson, SE cor. NW, Section 35-22-6, had sand 2,660-65 feet and made four small flows. It is estimated at 50 bbls. This well is an offset to a dry hole drilled to 3,356 feet by the Burke-Greis Oil Co.

Creek County

J. B. Grieves is rigging up No. 1, SW cor. SE, Section 12-19-8. Burlingame & Sharp's No. 2, NW cor. SW NW, Section 13-19-8, had sand 2,404-2,410 feet and made 50 bbls. after a shot of five quarts. Gled Oil Co. has spudded No. 3, CSL SE SW, Section 13-19-8. J. O. Walters has spudded No. 1, SE cor. NE SE, Section 30-18-8. J. W. McCulloch Oil Co. has a rig on the ground for No. 1, SE cor. SE, Section 20-18-9. Ike Simons and others have spudded No. 1, SE cor. NW SE, Section 4-18-10. Madden & Madden have spudded No. 1, SE cor. SW SW, Section 30-18-10.

The Texas Company has a rig on the ground for No. 1 Simons, SW cor. SE, Section 3-17-9. Roxana Petroleum Corp. is building the rig for No. 1 Lena Bruce, NW cor. NE, Section 10-17-9. Wood & Farren have a rig up for No. 4 Char-Co-Teu-Ne, NW cor. SE, Section 21-17-9. Prairie Oil & Gas Co. has completed No. 6, NW cor. SW, Section 22-17-9, for 15 bbls. after being shot with 10, with 15 and with 5 quarts in sand 2,453-77 feet.

O. M. Ireland has spudded No. 1, SE cor. SW NW, Section 11-17-10. M. P. Evans has built a rig for No. 1 Littlehead, SW cor. NW NW, Section 16-17-10. Independent Oil & Gas Co. has abandoned the location for No. 2, CSL SE SW, Section 19-17-10. The Texas Company has rigged up No. 1 Dixon, SE cor. SW SW, Section 19-17-10. J. H. Wright has completed No. 9, CNL SE SW, Section 24-17-10, for 8 bbls. after a shot of 60 quarts in sand 1,860-78 feet; the rig is on the ground for No. 10 Dawson, NE cor. SE SW, Section 24-17-10; and for No. 8 Tah-Kay-Ney, CEL SE SE NW, Section 24-17-10.

In the Mounds district, Clint Williams and Cole have rigged up No. 1 Provene, SE cor. NW, Section 8-16-10. Near Sapulpa, Riverland Oil Co. is underreaming casing at 2,465 feet in No. 1-A Pah-Cah-Ney, SW cor. SE NW, Section 28-18-11, an old well to be drilled deeper. O. M. Ireland's No. 5, SW cor. SE SE, Section 8-17-11, had the Wilcox sand 2,488-97 feet and made 350 bbls. after a shot of 10 quarts. Shaffer Oil & Refining Co. has the rig up for No. 5, NE cor. NE, Section 17-17-11. Henry & Avers have spudded No. 1, NW cor. SE NE, Section 25-16-11. Devonian Oil Co. has spudded No. 5, CEL SE, Section 24-16-12. Independent Oil & Gas Co. has spudded No. 15, SW cor. NE NW, Section 27-16-12.

C. G. Tibbens has completed No. 23, NE cor. SW, Section 30-15-9, for 37 bbls. in sand 3,015-33 feet; the rig is built for No. 29, C SW NE, Section 30-15-9. Skelly Oil Co. has spudded No. 2, SE cor. NE NW, Section 31-15-9.

Wood Oil Co. is drilling at 450 feet in No. 2, SE cor. NE SE, Section 30-14-10.

Lincoln County

Prairie Oil & Gas Co.'s No. 2, SW cor. NW SW, Section 35-15-5, is dry and abandoned at 3,400 feet. Wentz Oil Corp. is plugging No. 1, SW cor. SW, Section 36-15-5, after a hole full of water was found in sand 4,628-58 feet; the location has been abandoned for No. 2, NW cor. SW, Section 36-15-5.

In the Skelly-Ford area, the Skelly Oil Co.'s No. 5, NE cor. SE NE, Section 7-15-6, had sand 4,068-74 feet and made 410 bbls. naturally.

In the Davenport Field, The Texas Company's No. 2, SW cor. SE SE, Section 2-14-5, made 60 bbls. naturally from sand 3,371-72 feet and was shot with 106 quarts and made 65 bbls. Amerada Petroleum Corp. is rigging up No. 8 Belles, CNL NW NW SW, Section 3-14-5. Prairie Oil & Gas Co. has the rig up for No. 22 Stout, CSL NW, Section 3-14-5. Magnolia Petroleum Co.'s No. 1, NE cor. SE, Section 10-14-5, had sand 3,375-90 feet and made 112 bbls. naturally. It was shot with 40 quarts and then made 140 bbls. The Phillips Petroleum Co. has built the rig for No. 7 Patterson, SE cor. SW NE, Section 10-14-5. Magnolia Petroleum Co. has rigged up No. 2 Chapman, NE cor. NW SW, Section 11-14-5.

Caddo County

English-Jacobs' No. 3, NW cor. SE SE, Section 31-6-9w, had broken sand 2,148-62 feet and is estimated at 70 bbls. Briscoe & Halls' No. 5, NE cor. NE, Section 6-5-9w, had sand 1,876-92 feet and is estimated at 75 bbls.

McClain County

Becker & Reid have a rig on the ground for No. 1 Airington, C NE NW, Section 19-6-4w.

Garfield County

Marland Oil Co. and Mid-Continent Petroleum Corp. are drilling deeper in No. 62 School land, SE cor. SE, Section 13-22-4w; and No. 70 School land, NE cor. SE SE, Section 13-22-4w, is rigging up; the rig is built for No. 71 School land, NE cor. SE, Section 13-22-4w.

Hopper & Chapple have a dry hole at 1,250 feet in No. 1, CSL SE NE, Section 16-22-3w. Roxana Petroleum Corp. has built the rig for No. 4-T Schroeder, CNL NW SW SW, Section 18-22-3w, and for No. 7-L Schroeder, SE cor. NW SW, Section 18-22-3w; No. 15 Schroeder, NE cor. NW SW, Section 18-22-3w, is fishing for tools at 2,590 feet.

Kay County

Grant Parkhurst has spudded No. 1, CSL SE SE SW, Section 32-28-3. In the Braman Pool, the Comar Oil Co.'s No. 5, SE cor. NE SW, Section 5-28-1w, had sand 2,318-57 feet and made 2,618 bbls. naturally. D. W. Moore and others have a dry hole at 3,617½ feet in No. 1, SE cor. NE, Section 31-28-1w. Harold Petroleum Co. has spudded No. 5, SW cor. SE SE, Section 4-27-1w. Schonwaldt and others have spudded No. 1, SW cor. NW, Section 4-27-1w. Tidal Oil Co. has a rig in for No. 3, NW cor. SE, Section 8-27-1w. Blackwell Oil & Gas Co.'s No. 5, NE cor. NE, Section 9-27-1w, had sand 3,418-62 feet and found water at 3,427 feet. It was plugged back to 3,425 feet and shot with six quarts and made 125 bbls. It was an old well drilled deeper. Blackwell Oil & Gas Co. has built the rig for No. 8 Geiger, NE cor. NE, Section 9-27-1w.

Seminole County

Empire Gas & Fuel Co. has spudded No. 1, SW cor. SW, Section 3-7-6. Magnolia Petroleum Co. is drilling at 350 feet in No. 1, SW cor. NW SE, Section 10-9-5. Superior Oil Corp.'s No. 1, SE cor. SW SW, Section 10-9-6, is drilling at 550 feet. The Carter Oil Co. is drilling at 450 feet in No. 1, SW cor. NW NE, Section 24-9-6. Tidal-Osage Oil Co. is drilling at 300 feet in No. 2, SE cor. NE SW, Section 24-9-6. Carter Oil Co. has spudded No. 1, NW cor. SW, Section 35-9-6.

Okmulgee District

Empire Gas & Fuel Co. has a rig built for No. 1 School land, SE cor. SE, Section 16-15-14.

Tulsa County

Ed Brady is drilling at 450 feet in No. 1 Porter, SE cor. NW, Section 5-17-13. B. S. & B. Tank Co. has a failure in No. 12, CWL SE NW, Section 17-17-

(Continued on Page 121)

MATERIAL INCREASE BEING SHOWN IN DRILLING ACTIVITY IN KANSAS

By J. L. Dwyer
Staff Correspondent, Kansas Fields

Drilling activity is on the increase in Kansas with the recording of 40 new locations. There is considerable activity both in the Golden Lane region of Greenwood County, and in Lyon County. Lyon in particular seems to be unusually active considering the limited production which has been uncovered in that area.

In Kingman County there should be a well completed near the find of Bort D. Fleeger and the Carter Oil Co. within two weeks. The discovery well is making 70 bbls. of oil and 25 bbls. of water. It is No. 1 Richardson in Section 16-27-7w.

In Sedgwick County near Wichita, Chastain & Chastain have a rainbow showing of oil in No. 1 Custer, Section 7-27-1. The showing was found in shale at 3,560 feet. The casing is being underreamed to shut off water.

Lyon County

Able and others have a machine in for No. 1 Reidner, SW cor. SW, Section 11-18-12. Jones, Wilhite and others have a rig on the ground for No. 1 Burnag, SW cor. SW, Section 13-18-12. Able and others' No. 1, NW cor. SW SW, Section 22-18-12, is dry and abandoned at 3,010 feet. Watchorn Oil & Gas Co.'s No. 1 Fuller is a new rig.

M. R. Buck and others have a dry hole at 2,474 feet in No. 1, SW cor. SW, Section 5-20-10. Transcontinental Oil Co.'s No. 3, CSL SE SW SW, Section 30-21-10, is drilling at 600 feet, and No. 4 Atyeo, NW cor. SE SW, Section 30-21-10, is rigged up; the rig is up for No. 5 Atyeo, NW cor. NE SW, Section 30-21-10. Theta Oil Co. has spudded No. 1 Jones, SW cor. SE NW, Section 30-21-10. Transcontinental Oil Co.'s No. 1, NW cor. NE NW, Section 31-21-10, is drilling at 400 feet. Sheedy and others have rigged up No. 7 Atyeo, NW cor. NE SW, Section 31-21-10, and the rig is built for No. 8 Atyeo, SE cor. NW SW, Section 31-21-10.

In the Madison Pool, Phillips Petroleum Co. has completed No. 9, SE cor. SW, Section 33-21-12. Sand was 1,832-83 feet with the first oil at 1,845 feet; the well was shot with 140 quarts and made 100 bbls. Phillips Petroleum Co. and Ballierre have a dry hole at 1,990 feet in No. 1, SW cor. NW, Section 29-21-13.

Empire Gas & Fuel Co. has completed No. 8-A, SW cor. NE NW, Section 14-22-11, for 150 bbls. after a shot of 120 quarts in sand 1,849-94 feet; the rig is up for No. 5 Bartlett, NW cor. NE SE, Section 15-22-11; No. 6 Bartlett, SW cor. SE NE, Section 15-22-11, had sand at 1,854-96 feet and made 27 bbls. after a shot of 80 quarts. Mid-Continent Petroleum Corp.'s No. 8, NE cor. NW SW, Section 18-22-11, had sand 2,083-2,109 feet and flowed 45 bbls. naturally; No. 9, NE cor. SE SW, Section 18-22-11, is dry and abandoned at 2,324 feet. York

(Continued on Page 121)

Plan Big Wildcat Play in Louisiana

Flexure From Caldwell Parish to Angelina County, Texas to Have 75 Tests Drilled This Year. Large Acreage Deal

By James H. Dameron
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., May 10.—What is termed by old-time operators as the biggest wildcat play ever lavished on any territory in the Mid-Continent got definitely under way when several rigs were moved in for a series of tests on the Caldwell-Angelina flexure running through Louisiana from Caldwell Parish to Angelina County, Texas.

And while operators with acreage in that area were preparing to drill, a gigantic lease deal, one of the largest in the petroleum history of the district, was consummated.

The deal involved 60,000 acres in Winn, Grant and Natchitoches Parishes and the leases were obtained by J. E. Smitherman and E. G. Palmer from the L. & A. Oil Co. The oil company comprises the Buchanan and other lumber interests having extensive holdings in that area.

Thirty thousand acres involved are in Townships 8 and 9, Ranges 1, 2 and 3 east and 1, 2 and 3 west. Five thousand acres are in Township 9, Range 5 west and the remaining 25,000 acres lie south and southeast of Urania.

According to the terms of the lease Smitherman and McDonald have five years in which to drill thirty 1,500-foot tests on the property. One of the tests is to be started within the next 90 days and one rig must be operating continuously until the 30 tests have been drilled.

The flexure, which is getting the benefit of the extensive wildcat campaign, runs from Caldwell Parish, through La Salle, Grant, Winn, Natchitoches, Sabine and Vernon Parishes into Angelina County, Texas.

The Humble Oil & Refining Co. touched off the fireworks in that area when the news leaked out that the Humble was blocking a huge block around Packtown. Before the news was out, however, the Humble had blocked 46,000 acres surrounding Packtown and will drill 23 tests to the 1,500-foot level this year. Rigs were moved in last week for three of the Humble's tests.

Since the Humble bestowed so much attention on that area other companies sent their lease men into the territory to buy protection acreage. The Louisiana Oil & Refining Corp. and the Southern Crude Oil Purchasing Co. also have huge blocks in that area.

To Drill 75 Tests

There are numerous independent operators with small blocks in that territory obtained some time ago with drilling clauses. Some of these operators have started preparations for testing. Those companies that do not have blocks somewhere along the flexure have sent their land men into that region to buy protection acreage.

For a while huge blocks could be obtained in that area with an agreement to drill the acreage involved. But recently prices have soared and some highly desirable acreage was leased anywhere from $5 to $10 an acre. In some instances fee owners scared operators off by asking unreasonable prices for wildcat acreage.

Conservative oil men predict that 75 tests will have been drilled in that general area by the end of 1926. Wildcats are either drilling or will be within the next two weeks in all of the parishes touched by the flexure. As far west as the Texas end of the flexure tests are being drilled.

Scores of oil men are scouring through the country daily picking up stray leases and dealing with large acreage owners trying to assemble blocks. Hotels that usually enjoy a fair amount of tourist and vacationist patronage are sometimes swamped when a group of oil men all happen to headquarter in that particular town for a few days.

While all of the tests will be watched with interest the tests around Georgetown will get the lion's share of the spotlight during the next few weeks by virtue of the showing made at Dowling & McCurry's test on the Swope farm which, while showing oil, was ruined by salt water.

From Trinity Horizon

Aside from the moving in of rigs for the starting of the greatest wildcat play in the petroleum history of either Louisiana or Arkansas the only other event to bring Louisiana from its usual pace was the blowing in of the Arkansas Natural Gas Co.'s No. 1 C. W. Lane, Section 13-21-15, in Caddo Parish which is producing from the Trinity horizon.

Coming in with a terrific roar, the well is making 45,000,000 feet of gas daily from a sandy lime formation at 3,610 to 3,613 feet. The gas is rich in gasoline content, making one-half gallon of gasoline to each 1,000 feet of gas.

When the well came in it was permitted to blow 20 minutes full blast to clean itself out and was then closed in. Six and five eighths inch casing was set in lime at 3,607 feet. The well presents a peculiar situation for those following deep sand tests in that area.

A few feet higher up the well had a producing formation that held a huge volume of gas showing some oil and the salt water that has been found in all of the other big gas wells drilled to the deeper horizons in Pine Island.

The Arkansas's well is an offset to the Gulf Refining Co.'s No. 17 Lane in the same section which is making about 5,000,000 feet of gas, 20 bbls. of oil and 600 bbls. of salt water at 3,713 feet. The Gulf is driving the hole deeper in search of the true Trinity sand.

Urania and Lisbon

Urania is continuing to lead all other pools in the state in production and has a safe lead on Lisbon in Arkansas. The field's production was extended during the week by the Yeary & Bristol well, Section 8-10-2e, which was completed for a commercial producer one-quarter of a mile north of production.

In Arkansas Lisbon focused the attention of operators upon the pool first by the re-classification of market quotations giving Lisbon prices for two higher grades of crude and second by the extension of the field.

The change of postings in El Dorado crude which created two new grades was made by the Standard Oil Co., to take care of Lisbon which is classified with El Dorado.

The grades and prices are as follows:

37° and above	$2.05
35° to 36.9°	1.95
33° to 35.9°	1.85
Below 33°	1.75

The change in postings was made when the Standard Pipe Line Co. started running crude through its new 4-inch line laid into the field from El Dorado. The other companies posted prices to conform to the Standard's posting.

The completion of the Standard line into the field was the fifth for Lisbon. The Shreveport El Dorado Pipe Line Co. ran the first line and was followed by the Atlantic Oil Producing Co., Magnolia Pipe Line Co. and the Lion Oil & Refining Co. The Lisbon crude tests between 35.9 and 37 degrees gravity.

The daily production of the pool is above 10,000 bbls. with considerable inside acreage yet to be drilled and outside tests are showing signs of extending the pool's production. More than a score of tests are drilling for the sand today.

The crude is the highest gravity in south Arkansas and operators of several leases are putting in power plants to keep up production in event the pressure goes down and the wells cease flowing.

H. L. Hunt's Smackover extensioner, No. 1 Swilley, Section 28-16-16, which had sand at 2,680-83 feet is flowing 60 bbls. of oil daily through 2-inch tubing but is to be put on the pump.

Production Gain

The production of both states showed a gain of 3,200 bbls. last week. In Arkansas Smackover heavy accounted for the big gain there when its production increased 2,000 bbls. The only pool failing to show a gain in Arkansas last week was the Smackover light oil field. Every field in Louisiana save Bellevue and Caddo heavy showed an increase with Urania leading.

Production by fields:

Louisiana	
Bellevue	2,480
Caddo light	9,060
Caddo heavy	2,135
Cotton Valley	8,605
De Soto and Red River	3,965
Elm Grove	540
Haynesville	10,325
Homer	5,790
Urania	12,140
Total	55,040
Arkansas	
Smackover heavy	134,720
Smackover light	17,505
El Dorado	7,630
Lisbon	10,625
Nevada	3,315
Stephens	1,950
Total	175,745
Total both fields	230,785
Total last week	227,575
Difference	3,210

Union County, Arkansas

Extending production and increasing pipe line runs Lisbon's new production for the past week was more than 1,800 bbls. The best well of the lot was the Atlantic's No. 6 Slaughter, Section 9-17-16, which was finished in sand at 2,070 to 2,107 feet, making 700 bbls. naturally.

Atlantic's No. B-2 Andress, Section 16-17-16, is making 40 bbls. on the pump in sand at 2,103-28 feet, and No. 3 Graham, same section, is an abandoned location. Humble Oil & Refining Co.'s No. 2 Slaughter, Section 9-17-16, was junked at 1,251 feet because of a bad fishing job. Imperial Oil & Gas Co.'s south extensioner No. 1 Primm, Section 21-17-16, was completed for a 25-bbl. well in sand at 2,135-62 feet. Lion Oil & Refining Co.'s No. 3 Goodwin, Section 16-17-16, is pumping 50 bbls. daily from sand at 2,109-24 feet. Miller & Cottingham's No. 4 Slaughter, Section 9-17-16, is flowing 200 bbls. daily from sand at 2,106-40 feet. Olvey & Jones' No. 1 Graham, Section 16-17-16, is making 25 bbls. on the pump in sand at 2,074 to 2,113 feet. Pure Oil Co.'s No. 1 Slaughter, Section 4-17-16, was fishing in sand at 2,121-42 feet, and is flowing 300 bbls. daily. On the Dumas A lease, Wingfield and associates completed No. 4 for a 400-bbl. well in sand at 2,086 to 2,119 feet. On the Slaughter lease in Section 9-17-16, the same operators' No. 4 is flowing 400 bbls. daily from sand at 2,085 to 2,115 feet.

On the B. Andress lease, Section 16-17-16, Atlantic's No. 3 is drilling at 1,338 feet and No. 4, NE SW SE, is a rig. Atlantic's No. 1 Goodwin, Section 16-17-16, is drilling at 1,543 feet and No. 2 Graham, same section, has resumed drilling and is below the 929-foot level. In the north end of the pool Bond & Evans' No. 2 Kilgoe, Section 4-17-16, has 1,500 feet of oil in the hole from sand at 2,128-76 feet and is waiting for a standard rig. In the southeast corner of the pool Foster & McWilliams are setting the 6-inch casing at 2,148 feet at No. 2 Mooty, Section 15-17-16. Hatfield and associates' No. 2 Ennis, Section 23-17-16, is waiting for the 6-inch to set at 2,123 feet. Six-inch casing is being set at 2,061 feet at Hickman and associates' No. 1 Slaughter, Section 3-17-16. Six and five-eighths-inch casing was cemented at 2,112 feet at Humble Oil & Refining Co.'s No. 1 on the Goodwin lease, Section 16-17-16, and a derrick pattern has been built for No. 3, SE SW. On the Slaughter lease, Section 9-17-16, Humble's No. 1 is in sand at 2,093 to 2,113 feet with 1,500 feet of oil in the hole waiting for a standard rig and No. 2-A, NE cor., is a rig. A rig is up for Imperial Oil & Gas Co.'s No. 1 Goodwin, Section 26-17-16; surface casing was set at 102 feet at No. 2 Primm, Section 21-17-16, and a derrick pattern is being built for No. 3 Primm, SE NE NW, same section.

Waiting for Orders

Keisker and associates' No. 1 Harrell, Section 15-17-16, is shut down at 2,090 feet waiting for orders. Casing has not been set at the test. J. P. Kelly's southwest extensioner test, No. 1 Mitchell, Section 20-17-16, is in sand 5 feet and is setting casing on top of the sand at 2,145 feet. On the Dumas lease in Section 9-17-16, Magnolia Petroleum Co.'s No. 6 is a derrick pattern and No. 7 is drilling at 410 feet. On the Slaughter lease in the same section Magnolia's No. 2 is waiting for the cement to set at 2,085 feet and at 2,090 feet at No. 5; No. 6 is a derrick pattern as is No. 7 and a derrick is being built for No. 9, CWL E half NW NE. With 400 feet of oil in the hole from sand at 2,104-24 feet Marine Oil Co.'s No. 2 Graham, Section 16-17-16, is waiting for a standard rig. Marine's No. 6 is drilling at 600 feet and No. 7, CWL SW SE, is a rig. Miller & Cottingham's No. 5 Slaughter, Section 9-17-16, is drilling at 1,200 feet.

Natural Gas & Fuel Co.'s No. 5 Andress, 160 feet south and 660 feet west, NE NW NE, Section 16-17-16, is a derrick pattern. Ohio Oil Co.'s No. 1 Godwin, Section 21-17-16, is standing with 500 feet of fluid in the hole from sand at 2,126-58 feet waiting for a standard rig and a derrick has been built for No. 2, SW NW NE. Six-inch casing was cemented at 2,090 feet at Owens and associates' No. 3 Slaughter, Section 4-17-16, and No. 4 is drilling at 1,440 feet. Six and five eighths inch casing was cemented at 2,083 feet at Pure Oil Co.'s No. 3 Dumas, Section 9-17-16, and a rig is standing for Pure's No. 2 Slaughter, SW N half SW SE, Section 4-17-16. In sand at 2,077 to 2,114 feet J. D. Reynolds' No. 4 Dumas, Section 15-17-16, is waiting for a pumping rig. Reynolds & Marr's No. 1 Mooty, NW cor. Section 22-17-16, is a rig. Surface casing was set at 82 feet at Rovenger Oil Corp.'s No. 2 Graham, Section 16-17-16, and the test is drilling at 1,630 feet.

Roxana's Operations

Roxana Petroleum Corp.'s No. 1 Dumas, Section 9-17-16, is drilling below the 1,700-foot level. On the Roxana's Flournoy lease, Section 4-17-16, casing is being bailed at 2,090 feet at No. 1; No. 2 is in sand 12 feet topped at 2,111 feet with 300 feet of oil in the hole waiting for a standard rig; No. 3 is drilling at 1,160 feet; No. 4, NE cor. SE SE, is a derrick. Simms Oil Co.'s No. 3 Dumas, Section 9-17-16, topped sand at 2,100 feet and is in 25 feet waiting for a standard rig. Simms' No. 1 Kilgoe, Section 4-17-16, is

Quoted opinion of Mr. Walter C. Teagle, President, Standard Oil Co. (N. J.), given to the Federal Oil Conservation Board at Washington, D. C., February 10th and 11th, 1926:

(From the official record as printed by the Government Printing Office, Washington)

"The inventive energy of the industry which has been continuously engaged on the problem of increasing the yield of the major product was rewarded in 1912 by the commercial utilization of the cracking still, which for the first time produced a major product from a source other than crude.

"This early invention and the various processes which came into existence during the next few years, while representing enormous strides in the science of refining, were limited to the cracking of distillates, leaving yet to be discovered the application of cracking to the fuel crudes and those of high sulphur content, such as California crude, Mexican crude, and coastal crudes, the production of which in 1922 represented 45.82 per cent of the total supply.

"The price differential between

gasoline and the fuel-oil value of these fuel and high sulphur crudes was the incentive for the further development of cracking processes which have been perfected within the past two or three years, and the industry is thus for the first time in a position to produce gasoline from them.

"Every grade of crude produced is now a potential source of gasoline."

(Italics used are ours)

Universal Oil Products Company
Owners of the Dubbs Process
310 South Michigan Ave
Chicago, Illinois

shut down while the rig is being repaired. Simms Oil Co. has three on the Perry lease, Section 16-17-16, waiting for standard rigs. No. 1 has 300 feet of oil in the hole from sand at 2,100-28 feet; No. 2 has 400 feet of oil in the hole from sand at 2,097 to 2,122 feet and No. 5 has 500 feet of oil in the hole from 20 feet of sand topped at 2,085 feet. A rig is standing for No. 4 Perry, a derrick is being built for No. 5 Perry, SE SE NE, a derrick is standing in the NE SE NE, for No. 6; No. 7, SE NE NE, is a derrick and No. 8, NE cor. of the section, is a location.

Southern Crude Oil Purchasing Co.'s No. 1 Slaughter, Section 3-17-16, has 600 feet of fluid in the hole from sand at 2,093 to 2,122 feet and is waiting for a standard rig and a derrick has been built for No. 2 in the SW cor. of the section. Stock and associates' No. 1 Dumas, Section 10-17-16, is showing a little oil and is being bailed to test at 2,106-13 feet. Six-inch casing was cemented at 2,075 feet at Wingfield and associates' No. 7-A Dumas, Section 9-17-16; No. 8-A is drilling at 1,200 feet; No. 9-A is drilling at 700 feet, and No. 10-A, CSL SW NE, is a derrick. On the Slaughter lease in Section 9-17-16, the same operator's No. 8 has 100 feet of oil in the hole from sand at 2,075 to 2,107 feet and is waiting for a standard rig; No. 9 is drilling at 1,900 feet and six-inch casing is being lowered to 2,055 feet at No. 10. Six-inch casing is being set at 2,081 feet at T. J. Woodley's No. 3 Dumas, Section 9-17-16.

Smackover Area

In the Smackover area Holleyfield and associates' No. 2 Murphy, Section 9-16-15, was completed at 2,625-69 feet in broken sand and is making 6,000,000 feet of gas spraying 15 bbls. of oil. Eason and associates' No. 3 Palmer, Section 9-16-15, was completed in sand at 2,646-48 feet for a 4,000,000-foot dry gasser. W. R. Keever's No. 6 Murphy, Section 8-16-15, was put on the pump and is making 65 bbls. of oil daily from sand at 2,473-74 feet.

The Magnolia Petroleum Co.'s No. 3 Le Croy, Section 17-16-15, was given up and plugged at 2,645 feet. Magnolia's No. 3 Tatum, Section 7-16-15, was completed in sand at 2,556-63 feet for a 75-bbl. well. Pure Oil Co.'s No. 9 Friend, Section 6-16-15, was finished at 2,536-65 feet and making 135 bbls. of fluid on the swab, 35 per cent of which was salt water.

Arkansas Drilling Co.'s No. 1 Rogers, Section 20-17-15, is drilling at 1,250 feet. Brooks, trustee, has a derrick pattern on location for No. 1 Primm, NW NE NE, Section 9-18-17. With 2,000 feet of oil in the hole from sand at 2,597 to 2,604 feet, G. J. Child's No. 2 fee, Section 8-16-16, is waiting for a standard rig. Clark & Greer's No. 3 Robinson, Section 6-18-15, is drilling at 1,600 feet. Standard tools are being used to drill out the cement plug at 2,155 feet at Constant Refining Co.'s No. 6 Burns, Section 31-17-15. Surface casing was set at 127 feet at Crestline Oil Co.'s No. 1 Telford, Section 24-17-15, and the test is drilling at 1,085 feet. Ten-inch was set at 150 feet at Eason and associates' No. 8 Murphy, Section 15-16-15. Five-inch casing is being recemented at 2,456 feet at Estes and associates No. 3 Murphy, Section 15-16-15.

Federal Petroleum Co.'s No. 6-B Lawton, Section 10-16-15, tested 3,000,000 feet of wet gas at 2,624 feet and is to be slowly deepened. Federal's No. 3 H. B. Murphy, Section 15-16-15, is being washed to the bottom at 2,043 feet. The well was completed during the summer of 1923 for a 450-bbl. well. Gulf's No. 17 Alphin, Section 2-16-15, is being reamed to the bottom at 2,684 feet and No. 2 Clawson, Section 14-16-15, is drilling at 2,557 feet. Gulf's No. 3 McMullen, Section 1-16-16, tested salt water at 2,583 feet and is drilling ahead at 2,655 feet. W. H. Harper's No. 1 Mathews, Section 34-16-16, is being cored at 2,076 feet. Six and five eighths inch casing is being set at 2,123 feet at Hatfield and associates' No. 2 Ennis, Section 23-17-16. Howell & Knowles' No. 2 Springer, Section 36-17-16, is drilling at 2,150 feet. Six and five eighths inch casing is being set at 2,727 feet at Humble's No. 3-B Flenniken, Section 9-16-15, and the same operators are fishing for junk at 2,644 feet at No. 2-B Lawton, Section 7-16-15.

Smackover Extensioner

By steel line measurement H. L. Hunt's Smackover extensioner, No. 1 Swilley, Section 28-16-16, is in 3 feet of sand topped at 2,675 feet and is waiting for a standard rig. Imperial Oil & Gas Co.'s No. 12 McClanahan, Section 6-16-15, is drilling at 2,400 feet. Imperial's No. 8 McClanahan, Section 6-16-15, formerly completed at 2,377 feet as dry, is drilling at 2,435 feet. E. M. Jones' No. 2 Murphy, Section 17-16-15, is in 21 feet of broken sand topped at 2,637 feet and has 1,000 feet of fluid in the hole. Ten-inch casing was set at 247 feet at Lion Oil & Refining Co.'s No. 1 Coombs, Section 25-18-16, and the same company's No. 8 Flenniken, Section 10-16-15, is coring at 2,406 feet.

Magnolia Petroleum Co.'s No. 4 Tatum, Section 7-16-15, is drilling at 2,525 feet, and a derrick is being built in the CEL of west 10 acres, NW NE, for No. 5 Tatum. A derrick is standing for Magnolia's No. 1 Childs, Section 8-16-16. Magnolia's No. 6 Hatfield, Section 7-16-15, is being delayed by a fishing job at 2,595 feet. Four and one-half inch casing was cemented at 2,440 feet at Mazda Oil Corp.'s No. 2-B Lawton, Section 10-16-15, and arrangements are being made to deepen No. 4-R Lawton which had formerly been junked at 2,736 feet. Arrangements are being made to drill out the cement plug at 2,617 feet at Mazda's No. 6-R Lawton. Moorefield and associates' No. 1 Edwards, Section 2-19-18, is drilling at 2,330 feet. Peer Oil Co.'s No. 1 Cook, Section 17-16-15, is being reamed down to set 4½-inch casing at 2,529 feet and the same company's No. 5 Palmer, Section 9-16-15, is drilling at 2,310 feet. Arrangements are being made to set 6-inch at 2,020 feet at Leo P. Pukrul's No. 2 Smith, Section 17-16-15. C. L. Saxon's No. 2 fee, Section 4-16-16, is waiting for a standard rig with 700 feet of oil in the hole from sand at 2,603-09 feet. A short string of 4½-inch casing was cemented at 2,631 feet at Standard Oil Co.'s No. 12 McClanahan, Section 6-16-15. Sun Oil Co.'s No. 9 Brown, NW cor. NE NW, Section 8-18-15, is being rigged up to drill deeper. The well was completed late in 1921 for a 150-bbl. pumper. Unity Petroleum Co.'s No. 2 Lawton, Section 10-16-15, tested 6,000,000 feet of dry gas at 2,622 feet and is to be drilled deeper. Weiss & Simmons' No. 1 McElroy, SW NE, Section 4-16-16, is drilling at 500 feet. Williams and associates' No. 2 Goodwin, Section 16-16-14, is drilling in shale at 2,665 feet.

Ouachita County

Ouachita County's three oil wells were all in the Smackover district and the best was the Simms Oil Co.'s No. 10 Hildebrant, Section 28-15-15, which was completed in sand at 2,624-41 feet, making 10,000,000 feet of gas and 100 bbls. of oil. Sunny Jim Oil Co.'s No. 3 Hicks, Section 27-15-16, is pumping 60 bbls. of fluid, 50 per cent salt water, from 1 foot of sand topped at 2,379 feet. Imperial Oil & Gas Co.'s No. 7-A McClanahan, Section 6-16-15, is pumping 80 bbls. of oil from sand at 2,549-54 feet. The single failure in the county was the H. M. Harrell's No. 2 Moline Timber Co., Section 17-12-17, which tested salt water in the Nacatoch sand at 1,155-66 feet.

Humble Oil & Refining Co.'s No. 11-B Arnold, Section 26-15-16, is being reamed to the bottom at 2,637 feet. Six and five eights inch casing was cemented at 2,250 feet at Magnolia Petroleum Co.'s No. 2 Murphy, Section 30-15-16. The same size casing was cemented at 2,265 feet at A. Meek's No. 4 La Grone, Section 36-15-17. Neibert and associates' No. 1 Higgins, Section 4-13-17, is being washed to the bottom at 650 feet. Four and one-half inch casing was cemented at 2,578 feet at Ohio Oil Co.'s No. 6 Goodwin, Section 29-15-15. Twenty-inch casing was cemented at 82 feet at Phillips Petroleum Co.'s No. 1 Tate, Section 9-14-17, and when the tools were run back in the hole the bit was lost on bottom. Pure Oil Co. is sidetracking slips at 2,622 feet at No. 12 Brister, Section 28-15-15. J. D. Reynolds' No. 1 Ratch & Cartier, Section 2-14-18, is drilling at 50 feet. Simms Oil Co.'s No. 11 Hildebrant, CNL SE SE, Section 28-15-15, is a rig.

Surface casing was set at 95 feet at Simms Oil Co.'s No. 6 T. Murphy, Section 29-15-15, and the test is drilling at 1,007 feet. Smith Drilling Co.'s No. 3 Shirey, Section 36-15-17, is drilling in gumbo at 1,050 feet. Six-inch casing was cemented in gas rock at 2,603 feet at Standard Oil Co.'s No. 8-B Murphy, Section 29-15-15. Sun Oil Co.'s No. 6 Hardin, SE cor. NW NW, Section 27-15-16, is a rig. Arrangements are being made to deepen Sunny Jim Oil Co.'s No. 1 Hicks, Section 27-15-16, which was completed in the middle of 1923 by Bradstreet and associates for a 10,000,000-foot gas well making 15 bbls. of oil.

In the Stephens district, Buffalo Oil Co.'s No. 2 Davis, Section 22-15-19, has 1,000 feet of fluid in the hole from sand at 1,552-56 feet and is waiting for a standard rig. El Dorado Union Oil Co's No. 1 Hall, Section 31-15-19, is drilling at 500 feet. The S. S. Hunter estate's No. 1 Dalton, Section 21-15-19, is drilling in gumbo at 1,100 feet. Magnolia's No. 1 Watson, Section 31-15-19, is waiting for a standard rig at 2,204 feet. J. D. Reynold's No. 1 Davis, Section 22-15-19, is shut down at 1,450 feet. Six-inch casing was cemented at 1,387 feet at Reynolds's No. 1 Sawyer, Section 22-15-19.

Nevada County

Humble Oil & Refining Co. completed another nice well on its Graves lease, Section 1-14-21, when No. 1-B was completed in sand at 1,131-39 feet making 200 bbls. daily on the pump. Keystone Oil Co.'s No. 9 Waters, Section 11-14-21, is making 75 bbls. on the pump from sand at 1,212 feet.

Smitherman & McDonald's No. 5 C. W. Waters, Section 2-14-21, is in 18 feet of sand topped at 1,170 feet and is waiting for a standard rig.

Scattered Wildcats

Operations at the Magnolia Petroleum Co.'s deep test in Calhoun County were delayed when the 3-inch drill stem was lost at 4,465 feet at No. 1 Calion Lumber Co., Section 29-15-14. In the same county Southern C. O. P. Co.'s No. 1 Calion Lumber Co., Section 1-16-14, is drilling in shale at 1,935 feet. In Clark County Lovett's No. 2 Arnold, Section 12-9-20, is drilling at 830 feet. Haley and associates' No. 1 Moore, Section 29-9-10, Cleveland County, is shut down at 1,950 feet. In Columbia County Gorden and associates' No. 1 Jones, Section 36-15-20 is waiting for the cement to set at 2,204 feet. Haynesville Trust Co.'s No. 1 Wingfield, Section 18-19-19, is drilling at 1,363 feet. Hude & Aarnes' deep test, No. 2 Brown, Section 13-15-20, is coring at 3,317 feet. In Drew County, McClintock & Goodka's No. 1 Olga, Section 35-13-5, is drilling at 2,140 feet. Decem Oil Co.'s Jefferson County test, No. 1 Hensley, Section 7-3-10, is drilling in shale and lime at 2,502 feet.

Arkansas Fuel Oil Co.'s No. 4 Red River, Section 18-19-24, is being rigged up in Lafayette County. Ten-inch casing was set at 172 feet at the same company's No. 3 Allen, Section 18-19-24, and the test is drilling at 300 feet. Bostic and associates' No. 1 Frazier, 330 feet south and east, Section 8-18-24, is a derrick. Mellick Oil Co.'s No. 1 Hawkins, Section 10-11-31, is drilling at 1,375 feet. In Miller County, Lenze and associates' No. 1 Dale, Section 25-15-26, is drilling in rock at 1,870 feet.

La Salle Parish, Louisiana

Continuing its rapid spurt upward the state's largest pool from the standpoint of production, finished the week with a dozen new wells making better than 2,000 bbls. of oil daily.

Leading the group of new producers was the Sherman and associates' No. 2 Russell, Section 25-10-1e, which was completed for a 1,500-bbl. well in sand at 1,544-49 feet. Arizola Petroleum Co.'s No. 4 Tannehill, Section 36-10-1e, was abandoned at 1,527 feet. Avers and associates' No. 3 Urania, Section 13-10 1e, was completed in sand at 1,567-70 feet and made 35 bbls. on the pump. Beckman and associates' No. 6 Urania, Section 25-10-1e, was completed in 10 feet of sand topped at 1,525 feet and is making 40 bbls. on the pump. O. W. Clark's No. 3 Tullos, Section 23-10-1e, is a 25-bbl. pumper in sand at 1,498 to 1,505 feet. Dixie Oil Co.'s No. 5 Urania, Section 24-10-1e, was a duster at 1,582 feet and was abandoned.

Hardtner Oil Co.'s No. 2 Urania, formerly B. & B. Drilling Co.'s No. 2, Section 7-10-12e, is making 200 bbls. naturally from 6 feet of sand topped at 1,510 feet. Hunt and associates' No. 8 Tullos heirs, Section 26-10-1e, is flowing 450 bbls. daily from sand at 1,487-95 feet. S. S. Hunter's No. 2 Louisiana Central, Section 27-10-2e, was drilled to 2,010 feet and abandoned with a hole full of water.

(Continued on Page 115)

ARTESIA FIELD HAS PRODUCED 1,200,000 BARRELS TO DATE

By Special Correspondent

ARTESIA, N. Mex., May 8.—The Artesia Field, according to pipe line runs, has produced to date 1,200,000 bbls. The month of April showed 14 completions, bringing the total producers to 165 with 6 gas wells and a total of 31 dry holes for southeastern New Mexico, the dry holes for the field numbering 15.

A total of $121,311.27 in royalties has been paid to the State Land Office from the Artesia Field since October, 1925, according to State Land Commissioner E. B. Swope. Of this amount $20,697.20 was paid in during the past month.

The casinghead gasoline plant of the Phillips Petroleum Co. is now in operation, turning out approximately 7,000 gallons of gasoline daily.

The Humble Oil & Refining Co. on the strength of the showing made by the Maljamar Oil & Gas Corp.'s wildcat in Lea County, has purchased the following block of acreage, consisting of Sections 10, 12, 13, 14, 15, 21, 22, 23 and 27, all in Township 14, Range 33.

J. C. Barnett of Amarillo purchased two blocks, both of which call for wells. These consist of Sections 21, 23, 26, 27, 28, 33, 34, 35, the W half W half, Section 24, W half of W half, Section 25, the S half Section 14, S half of S half, Section 15, all in Township 18, Range 34, also all of Sections 16, 17, 18, 20, 21, 28, 29, 30, N half Sections 31, 32, 33, Township 15, Range 33.

Work will be resumed on the Bridges and others' test in the SE SE, Section 4-17-34. This test was formerly known as the Fenton well and later was taken over by Wyatt and others, who only carried the hole down a depth of several hundred feet.

Work on the Maljamar Oil & Gas Corp.'s No. 1 Baish is being delayed due to a bad fishing job, having a set of broken jars at a depth of 3,682 feet. Four more feet of saturated sandy lime from 3,647-51 feet was encountered in the well.

Interest in the field during the week centered in the Navajo Oil Co.'s No. 1, located in the center of Section 28-17-28, which was shot from 2,004-2,193 feet. The hole is standing full of oil. This well is located 2 miles north of the proven area.

One of the best producers in the north extension has been completed by the Frontier Petroleum Co. in its No. 10 on the McQuigg Brothers lease, Section 4-18-28, the pay being encountered from 2,219 to 2,311 feet. The hole is standing 1,800 feet in fluid.

Flynn, Welch & Yates are drilling in their No. 42 in the NW SW, Section 3-18-28, which encountered a strong gas

(Continued on Page 106)

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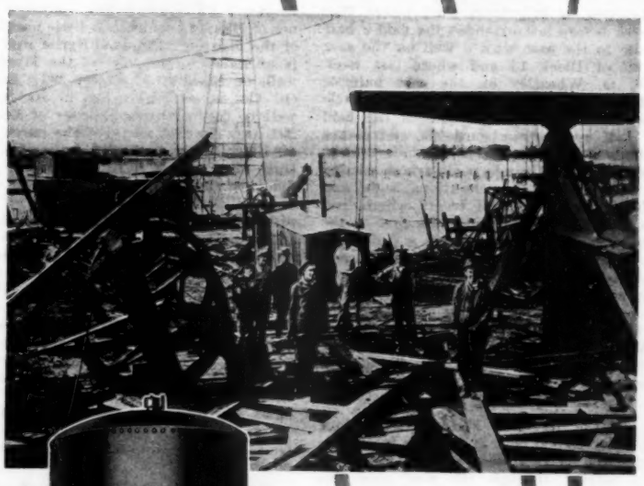

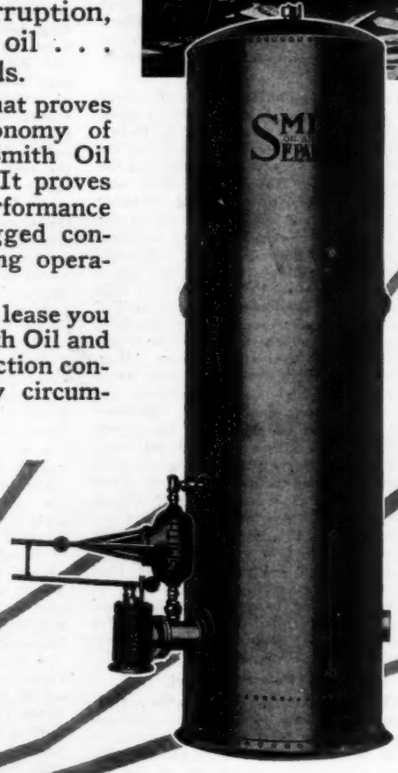

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New Randado Field Gets Attention

Houston Gulf Gas-Morgan's No. 4 Palacious Starts Campaign of Development to the Southwest. Three Tests Due

By B. D. Stevenson
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., May 10.—Houston Gulf Gas and William F. Morgan's No. 4 Palacious in Block 20 of Survey 291 in the new Randado Field completed the last week at a total depth of 1,260 feet and which came in gauging at the rate of 250 bbls. in an hour and 15 minutes, natural flow, has attracted attention away from the Bruni tracts in the Mirando Field south of the Aviators or Edgington Pool where Ball week before last extended the field a half mile to the east with a well on the east half of Block 13 and where last week W. O. Wheatley on the east half of Block 43 brought in a well at a little below 1,700 feet that extends the field a half mile to the southeast and makes the field at that point a full mile square. Most of the Mirando pools are shoestring affairs only a few locations wide and drilling in the Bruni tracts where first production was got since the first of the year has now blocked out a full mile square of proven acreage and the biggest single area in the field and destined seemingly to extend some more yet. It has started a big wildcat campaign further south in the direction of the old Mirando Valley Pool where the discovery well of the district was brought in some years ago.

Randado Field

In the Randado Field in Jim Hogg County 25,000 bbls. of oil were in storage the first of this week waiting movement to market through the new pipe line being laid north to the Henne, Winch & Fariss Field, 7 miles away. Houston Gulf Gas and the Morgan brothers have organized the Randado Pipe Line Co. which is building the line and will have it completed early this week. It was first announced that a connection would be made in the Henne, Winch & Fariss or Jim Hogg County Pool with the Texpata pipe line to Mirando City. Since then a deal has been negotiated with the Magnolia pipe line at the Henne, Winch & Fariss Pool and a connection will be made with it. Magnolia owns some production in the new Randado Field, having completed three producers and drilling on others, and will probably run its oil from the Randado Field through the Randado Pipe Line, to the connection with its own line at the Henne, Winch & Fariss Field.

The most important completion in the field thus far is the No. 4 Palacious of the Houston Gulf Gas and Morgan in Block 20 which came in last Thursday with the sand topped at 1,242 feet and the total depth of the hole 1,260 feet, and flowing 250 bbls. in an hour and 15 minutes through the 6⅝-inch casing. It has since been choked down like the Nos. 2 and 3 of the same operators due to lack of storage. This well is 150 feet south of the north line of Block 20 of Survey 291 and 450 feet from the east line and is 300 feet west of the No. 2 which also came in a big well at the depth and was estimated to be making 1,200 bbls. through the casing and has been choked down to about 500. Bigger production in more recent completions in this field seems to be due to methods of completion. Houston Gulf Gas and others' Nos. 2 and 4 are a little southwest of the discovery well which is pumping a little over 100 bbls. daily from a depth of 1,270 feet. Houston Gulf Gas and Morgan's No. 3 is on Block 11 and is north of the discovery well and is a gasser of considerable size but also making oil.

Magnolia's Test

Magnolia Petroleum Co. has more than 1,000 acres west and south of Survey 291 and has set casing on a test 150 feet from the west line of Survey 291 and 150 feet north of the south line of Survey 291 in survey 267. This new well is a trifle over a quarter of a mile southwest of the Houston Gulf Gas and others' No. 4. The field seems to be taking a trend in that direction and Magnolia owns everything for a mile to the west and a mile to the south of Survey 291.

Houston Gulf Gas has set casing in its No. 5 Palacious in the southeast corner of Block 11 which is a little northeast of the discovery Pippin-O'Byrne well and is an offset to the first of the Magnolia wells on Block 10 of Survey 291. Simms Oil Co. is setting casing in its No. 2 well in the northwest quarter of Survey 291 and 150 feet north of the north line of Block 11 and offsetting the Houston Gulf Gas No. 4. Three tests in the field are thus due to come in this week and will probably be completed if the pipe line is completed and available. Houston Gulf Gas and Morgan are rigging up on the northwest corner of Block 14 and only a short distance north of the discovery well which is also on Block 14. The blocks contain 40 acres. Morgan Oil Corp. is rigging up in the northeast corner of Block 12 on the east 10 acres out of the block. Black & Huckson have a test in the southeast corner of Block 13 of Survey 291 which is a west offset to the discovery well on Block 14 and a north offset to the Houston Gulf Gas and Morgan's No. 2 on Block 20.

Since the completion of the discovery well in the pool last fall by Pippin, O'Byrne, Conway, Minnehan & Bailey, Magnolia has drilled three wells in the north edge of Survey 415 which adjoins Survey 291 on the south. The first was a small producer making probably 15 bbls. of oil and considerable salt water at about 1,278 feet. The other two, one to the east and one to the west of it, were registered as failures though they got a little oil. Andrews Petroleum Co., a mile northwest of the discovery well, drilled to 2,380 feet without getting production. Simms a half mile north of the discovery well got a gas well at 1,250 feet. Magnolia drilled two wells on Block 10 in Survey 291 a little to the northeast and got fairly good small wells. Houston Gulf Gas offset the Magnolia No. 1 well on Survey 415 with a well 300 feet north of it and in Survey 291 and got a well about as good as the discovery well. Then followed Nos. 2, 3, and 4 which are all good wells and flowing. The others are all pumpers. A half dozen rigs are now running in the field and more promised. American Well & Prospect Co. of Corsicana owns everything to the east of Survey 291 for more than a mile and Magnolia everything west and south for a mile or more. Simms owns 1,000 acres, part of it in Survey 291.

New Pool Significant

The new pool has considerable significance and is sure to result in considerable wildcatting farther to the south. It is 40 miles from the Schott Field at Mirando City at the north end of the Mirando Field to the old Charco Redando Field in Zapata County on the south and the 99th Meridian cuts the center of every pool down to the old Mirando Valley Pool, 14 miles south of Mirando City, and also passes through the center of the Charco Redando Pool which consists of a number of wells producing from a depth of less than 200 feet. The Jim Hogg Pool is 2 miles east of the old Mirando Valley Pool and the new Randado Pool is 7 miles south of the Jim Hogg Pool. The conditions are so similar for the 15 or 16 miles south of the Randado Field to the Charco Rendado Pool that few oil men convince themselves but that there is a strong probability for other good pools.

This territory has attracted the attention of operators for some time. There has been a little wildcatting through it for several years but the wildcat tests have been at distant intervals. A year or so ago a new leasing campaign started down through this territory and on south through Starr County to the Rio Grande, a total distance from Mirando City of 80 miles. In Starr County few tests have been made due to innumerable delays in getting blocks of leases together but it is recognized that unless some mammoth pool is found elsewhere in America that overproduces the market a wildcat campaign of considerable importance will get under headway down through this territory.

Edgington Pool

Following fast on the heels of Ball's extension of the Aviator or Edgington Pool in Webb County a half mile to the east W. O. Wheatley last week completed an important test on Block 43 a mile south of Ball's well and a half mile southeast of the Staley & Wynne well in the northwest corner of Block 18. With the old production in the Edgington subdivision of the Puig Brothers ranch on the north and the Ball well on Block 45 a mile south of it these late completions, namely, Ball's well on Block 13 and Wheatley's on Block 43, mark the four corners of a mile square the center of which is not drilled. This is the widest territory in all the Mirando district, since elsewhere it is a shoestring only a few locations wide. Territory to the east of this shoestring up until recently was not thought much of generally but now it is in demand. Morgan Oil Corp. the past week paid $300 an acre for the 160 acres in Block 12 which is the next to the east of Block 13 on which Ball last week completed his well that extended the field. All that territory east in the Edgington subdivision on the north and the Bruni tracts on the south is now being sought by oil men and a dozen new rigs will soon be in the field east and south. Associated Oil Co. has for some time owned the south half of Block 44 of the Buni land between Block 43 on which Wheatley's well is located on the east and Block 45 on which Ball's well is located on the west. The Associated is moving in a rig. Duke Phillips and William F. Morgan are moving a rig to Block 46 next south of 45. Crown Central is rigging up on the west half of Block 48, the next block south of 43 on which Wheatley's well is located and Staley & Wynne are rigging up on the east half of Block 48 and Crown Central is rigging up on the west half of Block 43 to offset the Wheatley well on the west. Frank Ketch of Ardmore, Okla., has organized the Ruthada Oil Co. which is rigging up on the east half of Block 18. Staley & Wynne own the west half of that block and brought in a well recently that extended the field a half mile south there.

Production all through this district is found at a little below 1,700 feet. Three Rivers Oil Co. the past week completed at 1,731 feet its No. 4 Puig on Block 75 of the Edgington subdivision of the Puig Brothers ranch and is down 1,000 feet on its No. 5 and has made location for No. 6 which will be on Block 77 and a north offset to the Ball well on Block 13 of the Bruni land which came in recently extending the field to the east. Crown Central has spudded in in the southwest corner of the east half of Block 16.

W. O. Wheatley's well on Block 43, came in swabbing at the rate of 300 bbls. a day and is likely to improve some with the probability that when it settles and is on the pump it will make around 100 bbls. a day. Three Rivers Oil Co.'s No. 4 Puig, a mile north of Wheatley, came in swabbing 600 to 700 bbls. a day and will probably flow for a time before having to be put on the pump and will then settle to 200 bbls. or more for a considerable period. Sun Oil Co.'s well on the east half of Block 45, which came in a gasser and as reported last week had been worked over and was flowing about 250 bbls. of oil, is making nearly as much now. The entire block of a mile square, therefore looks like good production.

Other operations in that district of Webb County are: Crown Central is completing a well on Block 14 of the Bruni tracts, 150 feet from the north and east lines and offsetting it on the east in the northwest corner of Block 13. Gibson Oil Corp. has spudded in a test which offsets the Three Rivers Oil Co.'s No. 5 Puig. Gibson Oil Corp. has the north three-quarters of the west half of Block 13, and has a location in the southwest corner of its block. O. W. Killam completed a 35,000,000-foot gasser on Block 7 of Survey 835, on the west of the Bruni tracts, in a 4-foot sand at 1,634-38 feet, but lacking 100 feet or more of getting down to the producing horizon of the oil wells to the east of it, and it is being deepened and should be in the lower sands this week. Corpus Christi Oil Co., in the southeast corner of Block 51 of the Puig Brothers ranch, over a half-mile back up into the old production and a little to the west of it, has completed a well at 1,660 feet that is reported to be an average well for that district and good on the pump for 75 bbls. Simms Oil Co. has started to drill a well on Block 10 of Survey 835, a little to the south of Killam's well on Block 7.

In the territory to the south of the Bruni tracts and between that and the old Mirando Valley Pool, P. N. McCullough has abandoned at 1,810 feet his No. 1 Benavides on Block 7 of Survey 125, a half-mile north of the Zapata County line and a half-mile south of the south line of the Bruni tracts. Gleason and others are moving in a rig on Block 12 of Survey 9, a half-mile south of the McCullough test, and a trifle to the west. O. W. Killam has made a location for No. 1 Lopez, on Survey 309, about 1½ miles east of McCullough.

Carolina-Texas Fields

In the Carolina-Texas Gas Field, Roark's No. 2 de la Garza, on Block 11, Survey 335, is standing at 2,750 feet. Derrick is up for the Hale and others' No. 1 Coe, on Survey 51, 5 miles southwest, and arrangements are being made for a test to spud in. The proposition has been taken over by Sterling and others. Killam, on Survey 52, next to the east of Survey 51, on the Driver tract, is getting ready to spud in a test. Associated Oil Co. has abandoned its No. 3 Webster at 2,209 feet and is preparing to skid the rig and drill a replacement well. No. 3 was a small gasser in a sand at 2,120-35 feet and when drilled deeper was lost with a fishing job. Moody-Seagraves and William F. Morgan tested salt water at 2,780 feet in their No. 2 de la Garza on Block 61 of Survey 261, and are shut down after coring at 3,024 feet. United States Gas & Oil Co.'s No. 1 Benavides is waiting for water at 2,100 feet. J. H. Winch is drilling at about 800 feet in No. 1 de la Garza, Block 12, Survey 336. Ritchison and others' No. 1 Billings on Survey 71.

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IN OIL FIELD EQUIPMENT—THE MOST HUMAN ORGANIZATION IN AMERICA

West of the Mississippi—Stores Everywhere
East of the Mississippi—The Frick & Lindsay Co.

a few miles northeast of the Carolina-Texas district, is fishing at 1,842 feet.

Zapata County

In Zapata County, Maurer & Duggan are drilling at 600 feet in No. 1 Garza in Survey 244, and The Texas Company's No. 2 Jennings is drilling below 4,030 feet. Cullinan & Clark are preparing to drill No. 1 Hinnant on Block 9 of Survey 10, and Perkins & Hill are shut down at 2,002 feet in No. 1 Yeager-Strohman on Survey 258.

Cole Field

On the Webb County side of the line in the Cole Field, Cole Petroleum has a derrick up for No. 10-A on Block 5 of Survey 3, the location being 150 feet from the northeast and southeast lines. No. 10 was 150 feet from the northwest and northeast lines and was drilled to about 2,700 feet, with some favorable showings. All other tests in the Cole Field are on the Duval County side of the line.

Cole Petroleum Co.'s No. 18 Benavides, located 300 feet southeast of the Cin-Tex Petroleum Co.'s discovery oil well, came in on April 27, a gasser. It has been opened at intervals since then and last Thursday when opened made a little oil. This treatment given to Cole Petroleum Co.'s No. 17 caused it, after it had come in a gasser, to make considerable oil and eventually turned it into an oil well. Due to heavy rains, the past week saw but little progress in the Cole Field.

Houston Oil Co.'s No. 2 Benavides, located 300 feet northeast of its No. 1 and 300 feet southeast of the Cin-Tex No. 2, each of which are producing oil wells, has been worked over and is now a producer. Tested first with casing set at 1,786 feet (Cin-Tex discovery well set at 1,781 feet) it seemed a failure. It was unable to pull liner and so whipstocked and drilled through the casing and reset with total depth of 1,799 feet and is now a small oil well on the pump. Houston's No. 5, which is farther to the southeast at a total depth of 1,803 feet, is a 25-bbl. oil well. According to the depths the dip is to the east. Houston's No. 4, a couple of locations to the northeast of the Cin-Tex discovery well, with casing set at 1,765 feet, is plugging back from a total depth of 1,994 feet. Cole Petroleum Co. has set casing in No. 20 Benavides in Block 8, Survey 10, at 1,724 feet, and is drilling on Nos. 23 and 24. Cin-Tex Petroleum Co.'s No. 5 Benavides, completed last week, is going onto the pump. No. 6 is drilling at 300 feet. Humphreys-Moody-Seagraves, in Block 5 of Section 10, have not started another test. Their second test reworked and tested the third time in an effort to shut off the top of the sand and exclude the gas, is a gas well spraying a little oil. There was 61 feet of sand in the test and more sand than in the wells farther south and the bottom of the sand carried oil. Geologists have been conferring as to methods in drilling the next well.

Gibson Oil Corp., a mile east of the Cin-Tex discovery well, is drilling at 2,040 feet. The dip is to the east and it yet has a chance of getting production in the same horizon as the Cin-Tex discovery well, which produces at 1,781 feet. George M. Ball, on No. 1 Roach, a mile east of Gibson, is drilling at 1,100 feet. Barkley-Meadows and Morgan are down a few hundred feet in No. 2 Benavides, a mile north of the Cin-Tex discovery well. Killam and Alexander are drilling at 1,200 feet in No. 1 Benavides, in Block 4 of Section 12, just across the line in Webb County. Killam and Slocum have taken over the True White test in Block 4 of Section 15, and are moving in tools. O'Hern-Putnam and Secord have made a location in Block 12 of Survey 174, off to the south of the field.

Piedras Pintas Salt Dome

Humble Oil & Refining Co. is drilling and coring at 4,097 feet in No. 5 Walsh located 450 feet southeast of No. 4, which was the discovery well of the dome and thus far the only producer completed though three tests have been drilled past the 3,623-foot sand, where No. 4 is producing. Humble will continue to make hole till a string of 4½-inch casing arrives. About six or seven thin sands each carrying oil have been penetrated in No. 5, and no water encountered below 3,556 feet, where 6⅝-inch casing is set. On the arrival of 4½-inch casing it will be set from the top of the hole with 13 joints of screen in the bottom of the hole to take in all the sands and a test will be made. Humble has erected a derrick for No. 6 Walsh, 364 feet northwest of the discovery well, and is clearing ground for a location 500 feet north of the discovery well.

Magnolia's No. 1 Speer, on Survey 185, a quarter of a mile northwest of No. 4 Walsh, is drilling at 3,260 feet, having been shut down for a time on account of boiler trouble. Moody-Seagraves and Morgan have not yet succeeded in pulling the liner in their No. 1 Walsh. J. K. Hughes has abanoned his test 1,800 feet north of the discovery well, at about 4,000 feet, Grayburg, a half-mile north of the discovery well, has abandoned No. 1 Halff at 4,020 feet. Humble Oil & Refining Co.'s No. 1 Schallert, on the Palangana salt dome, a few miles to the northwest, is drilling at 3,511 feet in a sandy shale, and its No. 8 Singer is rigged up and waiting for water. Its wildcat test in the north end of the county on fee land in Survey 272, is drilling at 600 feet. Simms Oil Co.'s No. 1 Schallert, on the Palangana salt dome, is drilling at 2,310 feet.

Wildcat tests in Duval County include Murchison & Fain, who are moving in a gasoline rig to No. 1 Peters, in the western part of the county on Survey 791. Benedum & Trees have set surface casing at 155 feet in No. 1 Southerland in Survey 195. Maurer & Duggan are drilling at 2,360 feet in No. 1 Hoggman in Survey 123. Tom Graham is drilling at 2,450 feet in No. 1 Beall in the northeast corner of the County on Survey 571, Block 10. Simms Oil Co. has abandoned its Bennett ranch test on Survey 37, at 3,367 feet, and is rigging up on the Dinn ranch in Survey 666.

Atascosa County

Some additional deep tests are to be made just south of the southwest of the Somerset Field and in Atascosa County. Complete arrangements have not been made for the tests but it is understood there will be more than one and by more than one operator. Last year some deep tests were made in the Somerset Shallow Field, some of them in Bexar County and some in Atascosa County, and with one exception, they were the first to be made in the field.

Bastrop County

Cranfil & Reynolds' test in Bastrop County, southwest of the county seat and near the old Dixie well, has not got out of the Austin chalk and is drilling at about 2,100 feet. The log is running high compared with other wildcat tests in the county.

Bee County

Benedum & Trees are setting surface casing in No. 1 Goree in the northwest corner of Bee County. W. G. Clark is drilling on No. 2 Scott, and W. E. Clark is arranging for another test on the Welder farm.

Bexar County

Humble Oil & Refining Co. abandoned at 1,100 feet its No. 1 Stopper in eastern Bexar County, when 100 feet in the Edwards lime. It was dry. Marland Oil Co., which prepared for its test farther south in eastern Bexar County and a mile north of St. Hedwig, by making many diamond core tests, is in the chalk which was topped at about 1,400 feet and fishing. The log is running favorable thus far and within the next week the test should begin to get into formations that may forecast its possibilities.

The McClure well (Utah Texas Oil Co.) No. 1 Ivan Vick, in the southern part of Bexar County at 2,782 feet, is about 16 feet into the Georgetown and showing a little gas but no oil. The log is still running high and a penetration of the Edwards lime will probably be made. This is attracting wide attention due to being on a structure and with every chance of being an Edwards lime producer.

Brooks County

Benedum & Trees are drilling at 1,860 feet in No. 1 Wormser, in northwestern Brooks County, and Ballard & Underwood have the derrick up for a test on the Lasater ranch at Falfurrias for a salt dome test in Survey 331, the location being 621 feet from the north line and 150 feet from the east line.

Brewster County

Green Valley Oil Co.'s No. 2 Wilson in Section 5, Block 212, T. & S. L. Survey in Brewster County, is drilling at 1,450 feet and expecting to reach a depth of 1,740 feet by about May 15. The old No. 1 Wilson got oil at 1,740 feet and bailed out several hundred barrels before the casing collapsed and the well was lost. No. 2 is only 40 feet from it.

Caldwell County

Golden West Oil Co. has bought the Beauchamp lease out of the Fields farm with one well making 41 bbls. a day and locations for four more, and will drill the additional locations. Golden West has installed a power plant to operate its river bed wells which for a year or more have been flowing. They will be put on the pump this week.

Murchison & Fain's No. 1 Miers, in the Dale territory south of Dale and several miles south of the Lytton Springs Field, is drilling and will go to the Edwards lime, though at about 2,400 feet and in the chalk it seems a doomed failure. Reiter-Foster, it will be remembered, abandoned last week its No. 1 O. S. Alexander, a little to the south which found the Edwards high but dry.

Frio County

Frio Petroleum Co. is drilling at about 500 feet in No. 1 Lyles in Frio County, and Wiley Wyatt is completing a block of leases at Pearsall for a test.

Guadalupe County

Golden West Oil Co. is rigging up to drill No. 10 McKean in the proven area of the Luling Field.

In Western Guadalupe County at New Berlin, several miles east of where the Humble Oil & Refining Co. has abandoned No. 1 Stopper in Bexar County, and where Marland is now drilling in Bexar County, J. M. Davis has gone into the first breaks of the Austin chalk at 908 feet. The well is on the Schultze land immediately south of New Berlin. It is probable the real chalk will not be encountered until the hole is some deeper but the log seems to be running high compared with former wildcats. Dixie, on the Koepp on the Cibolo River off to the west, got the chalk at 1,460 feet, and Davis, in the Hoese well off to the northeast, got the chalk at 1,480 feet. The Schultze is, therefore, running high and has caused considerable interest in leases and royalties, some royalties having changed hands on a basis of $100 for the eighth. Major companies are participating in the test by taking acreage around it. It is in a territory where Atlantic, Roxana, Dixie and other majors have drilled other wildcats previous to this in the belief there was a structure there. Payne & Bond, a couple of miles south of New Berlin, are at 1,274 feet, and casing was received last Friday for a test. There are some indications they have Serpentine. The Texas Company's Glenwinkle test south of Kingsbury in eastern Guadalupe County, a few miles south of the Luling Field, is in the Edwards lime and dry thus far. It will probably be abandoned.

LaSalle County

De Lange Eiser Development Co.'s No. 1 Dobie fee, in the southeastern corner of LaSalle County, is drilling at close to 720 feet.

Jim Wells County

Benedum & Trees are drilling at 1,800 feet in No. 1 Gallagher in Jim Wells County, a little south of Sandia.

Jim Hogg County

Crown Central, in share No. 1 of the Las Animas tracts, got a gasser of about 30,000,000 feet and is drilling at 700 feet in No. 1 Holbien, a little to the south on Block 23 of Survey 12 of the Holbein ranch. Killam has made a location for his No. 2 Hinnant, in Block 4, Survey 255, 200 feet from the south and 150 feet from the east line and not far from his No. 1, completed as a gasser recently. They are just west of the Holbien ranch west line. Kitselman & St. Albans' No. 28, on the north line of the Holbien ranch, which first tested a failure, has been reworked and is a 75-bbl. oil well, the third oil producer in that territory and in a new pool. No. 31, completed the past week in Block 22, Survey 11, is a 35,000,000-foot gasser, and No. 30, in Block 8, Survey 16, is drilling

(Continued on Page 118)

NINE PRODUCERS; TEN FAILURES; RECORD OF WEEK IN MEXICAN FIELDS

By George Blardone
Mexican Bureau, The Oil and Gas Journal

TAMPICO, Mex., May 7. — Some 19 completions sum the results of field work in Mexican fields during the past week. Of this number nine completions finished in the pay, all of them in the northern fields, resulting in new production, flush, that can be rated at 13,600 bbls. The ten failures contemplate one in the south fields, and the remainder in the northern fields.

Mexican Sinclair Petroleum Corp. led off with the best well of the week in its No. 98, Lot 2 Cacalilao, which finished for 5,000 bbls. at 1,865 feet, a shallow depth for the lot in question. On the other hand, Mexican Gulf Oil Co.'s No. 18-A Lopez was doing 5,000 bbls. as a last minute test at the very shallow depth of 1,450 feet. This is in the heart of the old Panuco Field, and much is expected from this well. Empire Gas & Fuel Co.'s No. 5-A, Lot 11 West Maguabes, is rated at 2,000 bbls. at the shallow depth of 1,348 feet, another shallow well within the compass of the Panuco Field. East Coast Oil Co.'s No. 59 Laguna de la Milpa, in the old Panuco, has a 100-bbl. well to its credit at 1,970 feet, and this also applies to its No. 64, same lease, at 2,115 feet. Mexican Sinclair Petroleum Corp.'s No. 24 Tanantura, Panuco, is good for about 100 bbls., coming in as a fluid well.

In the Cacalilao sector, Transcontinental Petroleum Co.'s No. 57 Paciencia is good for 300 bbls. at 1,680 feet.

In the Limon Cia. Pet. Franco Espanola (Marland), No. 51 Limon is good for about 40 bbls. at 2,200 feet.

In the Ebano, Mexican Petroleum Co.'s No. 76 La Dicha is good for 600 bbls. at 2,340 feet.

The Failures

The failures during the week are best contemplated as follows: La Corona Petroleum Co., in the Cacalilao, has quit No. 179, Lot 4, which drilled into salt water at 2,035 feet. In the old Panuco its No. 114 Salvasuchi is a duster at 2,216 feet. Credito Petrolero No. 10 Las Piedras is a dry hole around 2,000 feet. International Petroleum Co.'s No. 266, Lot 5 Cacalilao, is a dry hole at 2,257 feet. In the old Panuco, Mexican Sinclair Petroleum Co.'s No. 20 Tananturo drilled into salt water at 1,927 feet. Mexican Gulf Oil Co.'s No. 11 Zuniga did the same at 2,257 feet. Territorial Petroleum Co.'s No. 5 W. Maguabes had salt water at 1,855 feet. In Ebano, Mexican Petroleum Co.'s No. 60 La Dicha is plugging back for a possible small production, the total depth of hole being 2,084 feet; and its No. 75, same, is a dry hole at 2,250 feet.

In the south fields, Huasteca Petroleum Co.'s No. 71 Cerro Azul is a duster at 2,370 feet.

There is of little interest in the routine drilling operations in the fields in general as the week ended.

SWABS MORE OIL FOR LESS COST THAN ANY OTHER

The new Type "E" Guiberson Swab is primarily a *production* swab, having been designed for the operator who is swabbing day in and day out. The new design has been thoroughly tested in the oil fields. Runs of many days duration are on record *proving* the statement that this swab will produce more oil for less cost than any other swab on the market. Already, after tests, it has been adopted as standard equipment by many companies doing production swabbing.

The new swab has several features which render it the most efficient swab ever produced. Our oil tested composition cup with its basket of flexible steel wires is still the principal feature, but the cups have been shortened and strengthened and give much longer service when in constant use. The hole through the mandrel has been made exceptionally large, permitting the new swab to run down through the fluid more freely than any other swab in existence. Tool connection and mandrel are one solid piece. To change cups it is only necessary to unscrew the valve at bottom, whereupon both cup assemblies and the sleeve which separates them slip off the mandrel. The new design is much shorter and more compact than the "Type A."

It possesses all the advantages of the Type "A" Swab which gained world leadership for this swab within a year after its introduction.

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GUIBERSON
BETTER BE SAFE THAN SORRY

Best Completion in Irma-Wainwright

Making 150 Bbls. or Better, With Heavier Pressure of Gas and Finer Quality of Oil Between 19 and 20 Degrees

By Victor Lauriston
Staff Correspondent, Canadian Fields

CHATHAM, Ont., May 8.—In the Irma-Wainwright Field, east central Alberta, Edmonton-Wainwright Oil's No. 1, LSD 4, Section 29-45-6w4, was brought in with an estimated initial production of 150 bbls. or better. During the ensuing week the oil steadily rose in the hole and at last reports it had started to flow by heads, shooting the crude 40 feet above the top of the casing. Gas pressure is strong and is apparently increasing, and Head Driller Frank Stevens looks for a flowing well when the 3-inch tubing is in. The well has been bailing 22 bbls. an hour, and will probably make considerably more than the first estimate. It looks like the best well yet drilled in the Irma-Wainwright Field. Production was secured at about 2,240 feet, the drill being carried some 36 feet into the sand. The Edmonton-Wainwright No. 1 is some 620 feet north of British Petroleums, Ltd.'s No. 3-B, and about 8 feet higher on the structure, and the well shows a heavier gas pressure, and, it is claimed, a finer quality of oil, free from water and sand. It was brought in after 39 days of drilling with a rotary outfit and two six-men crews running 24 hours a day. The well is being tubed, and pumping equipment is on order in case it is needed. Edmonton-Wainwright Oils, Ltd., is financed largely by Toronto capital. No test of the crude has yet been reported, but it is believed to run between 19 and 20 degrees.

In the same field, Edmonton-Wainwright Oils, Ltd., is reported down 800 feet with the old Irma Oil Development Co. test, LSD 16, Section 28-45-9w4. The test has picked up a stray oil sand with slight saturation and some traces of gas. A fairly heavy gas sand is expected at 1,400 feet when it is planned to use the gas for fuel in the drilling of a deep test. The light equipment used for the Irma well will be replaced with a heavy rotary outfit for the deep test; it is planned to carry the latter to 2,500 feet in an effort to get the real oil bearing sand supposed to underlie the shallower oil sands already encountered elsewhere in the Irma-Wainwright Field. If the Irma well finishes a large gasser, the production will also be piped to the town of Irma.

New Operations

Maple Leaf Oil & Gas Co. No. 2, Section 19-45-8w4, which has a derrick up, is bringing in drilling equipment and will likely spud in late this month. Charles Bremner is in charge of operations. Maple Leaf No. 1 on the same section was carried to only 1,775 feet, finishing in a good gas sand with slight traces of oil. No. 2 will be drilled deeper. Interior Oil Co., Section 36-44-7w4, is getting in shape to resume drilling at 1,500 feet after the winter shutdown. Fred Beresford is in charge. Western Consolidated No. 1, LSD 7, Section 20-45-6w4, already down 1,400 feet is, waiting for 2,500 feet of casing to resume drilling. The British-Wainwright Oil & Development Co. of Winnipeg, Man., has secured 2,668 acres of leases and will start work on its location about May 15. Wainalta Oil Co. has been incorporated under Alberta charter with head office at Edmonton; the officers include, president, William R. Howson; secretary-treasurer, John G. Young; directors, W. R. Howson, George L. Graham, Clyde A. Hook, John Michaels and Norman Smith. The company will develop three leases comprising 160 acres in the Irma-Wainwright Field, location to be made this month.

Emerald Oils, Ltd., is unloading derrick timbers at Wainwright for its test on LSD 8, Section 30-45-6w4, offsetting the British Petroleums' No. 3-B and Edmonton-Wainwright No. 1 producers. Drilling will be done by the Drilling, Contracting & Producing Co. of Edmonton, with Frank Stevens and Pat Adams in charge. Officers of Emerald Oils, Ltd., are, president, R. W. Jones; vice president, H. S. Southgate; treasurer, John Kenwood; managing director, T. J. Sugars; director, E. T. Bishop, all of Edmonton. Fabyan Petroleums, Ltd., is reported unloading timbers for a test on LSD 8, Section 24-45-8w4, just north of the Maple Leaf wells. Mid-Canada Oil Co. is reported unloading derrick timbers at Hawkins Station for a test about 6 miles east of Irma. The Phoenix Oil Co. is reported making a location some miles north of Irma. Wainwright Petroleums, Ltd., is bringing in a rotary outfit from California for its test in LSD 6, Section 30-45-6w4, close to the British Petroleums No. 3 and Edmonton-Wainwright No. 1 producers. Ira Stanley, president of the Kevin-Sunburst Holding Corp. of Shelby, Mont., has been looking over the Wainwright and Ribstone-Blackfoot anticlines for Montana interests.

The Edmonton Oil Brokers Association was organized recently to further oil development in east central Alberta. The officers are, president, F. B. Matthews; vice president, W. Ross Alger; directors, Rose de Rouville, H. C. Lee, J. Kenwood, S. Smith; secretary-treasurer, Robert Muir.

West of Edmonton

In the northern foothills west of Edmonton the Imperial Oil, Ltd., Coalspur No. 2, LSD 110, Section 3-49-31w4, has been abandoned and the crew is moving to the Rice Creek well, Section 4-14-2w5, in the southern foothills west of Nanton. The Rice Creek test, shut down since last fall, will resume drilling at 4,025 feet. In the Jumping Pound district, 25 miles west of Calgary, Imperial Oil, Ltd., Bow River No. 1, LSD 15, Section 12-25-5w5, is down 1,865 feet and drilling. In the border field, east of Coutts, Imperial Oil, Ltd., Erickson Coulee, LSD 13, Section 8-1-12w4, is down 74 feet and drilling.

In the Turner Valley Field, southwest of Calgary, Royalite Oil Co. No. 5, LSD 13, Section 7-20-2w5, is down 3,079 feet. The 10-inch casing is reported landed at 1,650 feet and drilling will be resumed as soon as the cement has set.

McLeod Oil Co. No. 2, LSD 16, Section 1-20-3w5, at 3,635 feet has struck a further flow of wet gas estimated around 2,000,000 feet a day. A little 65 gasoline is condensed in the bottom of the hole, the bailer bringing up from four to five gallons. Drilling was stopped to run the 6¼-inch casing, but this has been completed and drilling resumed. The drill is apparently working close to the top of the Madison limestone and has not yet reached the main gas sand encountered in Royalite No. 4.

Vulcan Oils, Ltd., LSD 11, Section 13-20-3w5, has finished running the 6¼-inch casing which is set at 4,600 feet. Some oil testing 39 degrees collected in the hole, seeping through the casing, and this is being bailed before resuming drilling. There is considerable gas. Illinois-Alberta Oil & Refining Co. No. 1, LSD 14, Section 12-20-3w5, is unloading casing; the drill is shut down till this has been run.

Dalhousie Oil Co. No. 3, LSD 10, Section 13-20-3w5, is waiting for a swab to handle the oil flow recently encountered at 3,254 feet. The drillers are working to break up an underreamer lug lost in the hole, but progress is slow owing to loose sand in the bottom of the hole. Dalhousie No. 1, LSD 4, Section 18-20-2w5, has secured a special wall hook devised by Angus Sutherland to fish for the lost tools at the bottom of the 3,527-foot hole. Dalhousie No. 5, LSD 16, Section 30-19-2w5 is rigging up.

Dallas Oil Co., No. 1, LSD 11, Section 20-19-2w5, has cemented the 24-inch casing at 47 feet and started drilling the 20-inch hole. Great West Oil Co., SE Section 7-20-2w5, is drilling at 370 feet. Great West No. 2, on the same section, has derrick timbers on the ground. The same company is rigging up a test in the Kevin-Sunburst Field, close to the Stuart Campbell Nos. 1 and 2 wells now owned by the Royal Canadian Oil Co. Advance Oil Co. No. 2 has moved the derrick to a new location close to No. 1 well, LSD 14, Section 20-19-2w5, and machinery is now being hauled to the site. Advance No. 1, on the same section, is pulling the casing preparatory to carrying the 8-inch hole deeper; the hole is now down 3,200 feet and after it is reamed out the 8-inch tools will be carried down as far as possible. Home Oil Co., LSD 10, Section 2-19-2w5, has successfully shut off the water with the 24-inch casing and is now running a 20-inch hole at 175 feet.

It is reported that Belgo-Canadian Oils, financed largely by Belgian capital, will drill 16 wells on LSD 13 to 16, Section 4-19-2w5. The company has begun work on the old Record well, which is down 4,327 feet with a string of tools lying in heavy oil sand at the bottom of the hole. It is stated that green crude is standing 1,100 feet in the casing. The Record well was drilled at the time of the Calgary boom and abandoned by the original owners largely owing to lack of finances. Angus McLellan is in charge of fishing operations; if the tools cannot be moved explosives may be used to push them to one side and lower smaller casing.

Dolomite Oils, Ltd., has a location on LSD 1, Section 1-20-3w5. Neptune Oils, Ltd., incorporated under Dominion charter with $350,000 capitalization, will develop 303 acres in the district west of Turner Valley. Oil is looked for around 3,000 feet and gas between 700 and 1,000. Officers of the company are, president, Samuel Aiello; vice president, Morris Vietto; managing director, James Aiello; secretary-treasurer, Donald Shaw; director, Napoleon Galli.

Equipment on Ground

Highlands Oils, Ltd., has equipment on the ground for a test in LSD 5, Section 5-20-2w5. The test will spud in about June 1. J. J. Bowlen is managing director, with Angus McLellan as field superintendent. Scotia Oils, Ltd., has a location in LSD 13, Section 5-19-2w5. Spooner Oils, Ltd., recently organized by interests associated with Vulcan Oils, Ltd., with a Dominion charter will develop some of the original Spooner holdings in the Turner Valley Field, their acreage including parts of Section 24-20-3w5 and Section 13-20-3w5. They also have acreage in the Highwood district, and in Montana. The company is securing equipment for a test. Homestake Oils, Ltd., has located a test in NW LSD 5, Section 3-20-3w5, close to the old United No. 1 in the Black Diamond area. The company is incorporated under Dominion charter, officers including, president, Dr. C. E. Coleman; vice president, S. G. Jamieson; directors, David Anderson, L. Bannerman; secretary-treasurer, J. L. Brown.

New York-Alberta Oil Co., LSD 6, Sec-

(Continued on Page 115)

LABARGE FIELD DEVELOPMENT INCLUDES PIPE LINE TO RAIL

By Frank B. Taylor
Staff Correspondent, Rocky Mountain Area

CASPER, Wyo., May 8.—The Texas Company is arranging for the purchase of a half interest in the Wyotah Oil Co.'s holdings in the LaBarge Field in Wyoming. The deal calls for a payment of $150,000 cash and an additional $250,000 out of the proceeds of the oil produced. The Texas Company also binds itself to spend $125,000 in development work in the field.

The Texas Company will also lay a pipe line from the LaBarge Field to a rail connection when the daily production reaches 2,000 bbls. A 50,000-bbl. tank will also be placed in the field by The Texas Company.

The Corder wildcat, drilling in the Big Piney area about 10 miles north of the LaBarge Field, lost the rig by fire the past week. The fire went out in the boiler and oil flowed from the burner into the fire box and around the boiler. On attempting to relight the fire an explosion occurred that ignited the wasted crude and caught the rig.

The Fawcett - McPherrin Syndicate drilling on Section 3-26-113, brought in a producer estimated at 50 bbls. at 790 feet, the past week. This well is intended to be a deep test, but the shallow production may stop the drilling.

Utah Well Delayed

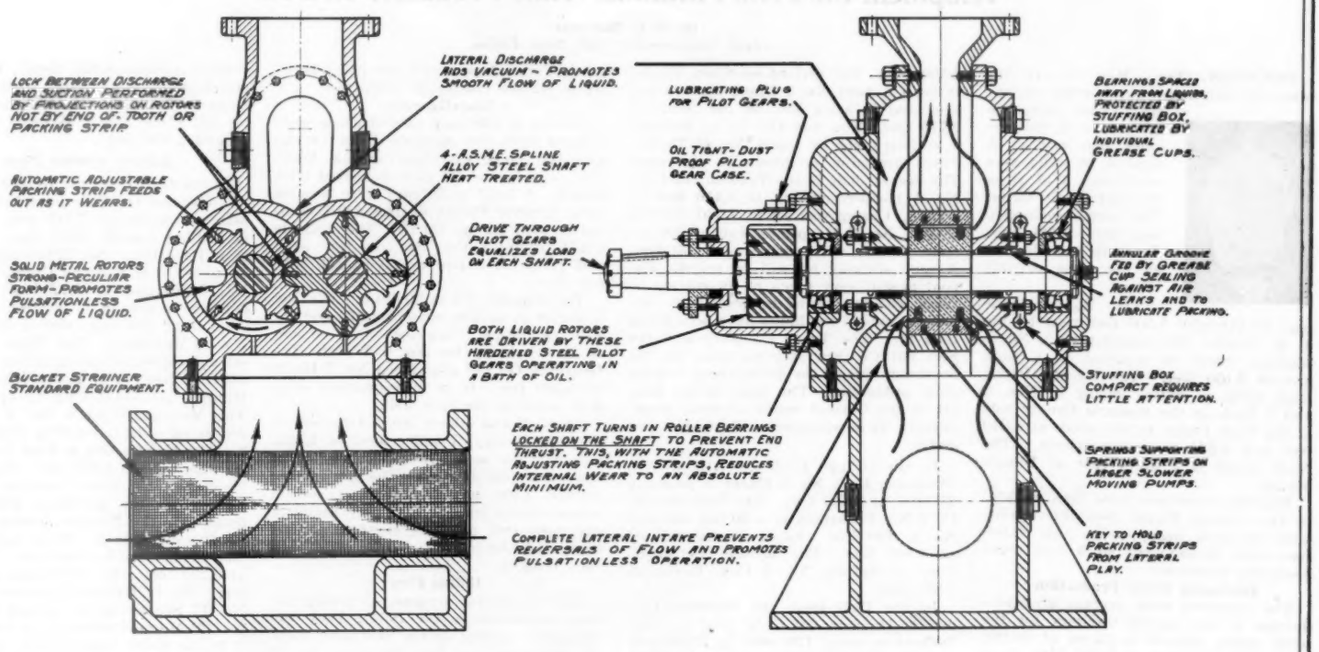
The Cane Creek well of the Midwest Refining Co. and the Utah Southern Oil Co. is still having trouble with the water shutoff and completion is held up thereby. The hole is now at 2,031 feet and is considered through the sand. As the well has been kept filled with mud since it was shut in, no test of production can be had. The test of the Shafer Dome, about 5 miles south of the discovery well, is at 578 feet and in the 15-inch hole.

The Midwest has four new steel derricks on the road to the district, for four new wells to be drilled this summer. These rigs will drill wells on contract for interests holding lands on the Cane Creek structure and on the Shafer Dome south of the Cane Creek. Among the wildcats drilling around Moab and down the river there is little of interest; promotions are being advertised on new structures in every direction.

A theory is being advanced among the oil men that the Utah structures like the Cane Creek, are salt domes, similar to those found on the Gulf Coast. The matter is due for considerable study and the wells in that region have salt water instead of the fresh water found all over Colorado and Wyoming, also thick beds

(Continued on Page 130)

THE IMPROVED
NORTHERN ROTARY PUMP
"Z" STYLE


LOCK BETWEEN DISCHARGE AND SUCTION PERFORMED BY PROJECTIONS ON ROTORS NOT BY END OF TOOTH OR PACKING STRIP
AUTOMATIC ADJUSTABLE PACKING STRIP FEEDS OUT AS IT WEARS.
SOLID METAL ROTORS STRONG—PECULIAR FORM—PROMOTES PULSATIONLESS FLOW OF LIQUID.
BUCKET STRAINER STANDARD EQUIPMENT.
LATERAL DISCHARGE AIDS VACUUM — PROMOTES SMOOTH FLOW OF LIQUID.
4-A.S.M.E. SPLINE ALLOY STEEL SHAFT HEAT TREATED.
DRIVE THROUGH PILOT GEARS EQUALIZES LOAD ON EACH SHAFT.
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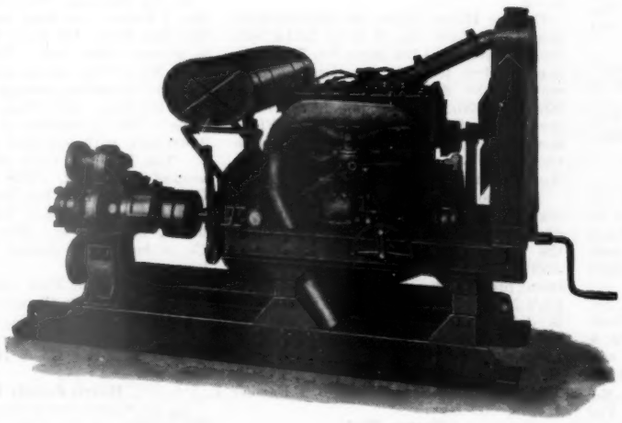

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Boling Pool Is Still Much in Doubt

May Be Extended 1,500 Feet West By J. K. Hughes Development Co.'s No. 1 Mullins. Nine Producers on Dome

By P. L. McGreal
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., May 10.—It has been an unusually quiet week in the Gulf Coast region, in contrast with the previous two weeks. A total of 20 wells were completed, 3 of them dry and 5 salt water. The new production was only 1,395 bbls. Six wells were bailing at the close of this review.

The Boling Dome may be extended 1,500 feet west by the J. K. Hughes Development Co.'s No. 1 Mullins, which is reported in a sand around 3,150 feet. The Rycade Petroleum Corp. is setting casing in Nos. 6 and 7 Nash on the Brazoria County side of the Nash Dome, to test sands at 4,040 feet and 4,344 feet, respectively. The Nash Dome is 7 miles east of Damon Mound.

Weather conditions have been unusual in the Coastal Plains Belt this spring, with constant heavy rains that interfere with development work and make operating expensive.

Estimated Gross Production

The estimated daily average gross production in the coastal territory for the week ending May 8 is placed at 96,060 bbls., or a decrease of 3,880 bbls. from the estimate for the previous 7-day period. The south Texas pools are credited with 84,005 bbls. of the gross and those in south Louisiana with 12,055 bbls.

There are 28 pools accounted for in the daily average production table and three carried under the head of miscellaneous, making a total of 31 producing districts. The miscellaneous includes Nacogdoches, Washington County, southwest of Brenham and Kleberg County, southwest of Kingsville.

The following table gives the estimated daily average for each pool:

Pool—	Gross Bbls.
Boling	7,650
Batson	1,400
Blue Ridge	840
Barber Hill	130
Big Creek	1,040
Dayton	60
Damon Mound	860
Edgerly, La.	650
Goose Creek	9,850
Humble	4,575
Hull	20,200
High Island	750
Jennings, La.	1,175
Lockport, La.	3,900
Markham	75
Nash	180
Orange	11,200
Orchard	75
Pierce Junction	1,675
Piedras Pintas	150
Spindletop	2,410
Saratoga	1,350
Sour Lake	4,250
South Liberty	5,750
Vinton, La.	6,250
West Columbia	9,400
Welsh and Anse La Bute, La.	80
Miscellaneous	125
Total	96,060

Southwest Fields

The estimated daily average gross production for the southwest fields is placed at 38,805 bbls. for the week of May 8. This is an increase of 250 bbls. compared with last week.

The estimate for each field is as follows:

Field—	Gross Bbls.
Luling	22,900
Mirando	6,870
Somerset	2,175
Rockdale-Minerva	960
Lockhart	5,900
Total	38,805
Grand total for week	134,865
Grand total last week	138,495
Decrease	3,630

Boling Dome

The Texas Company got a 25-bbl. well in No. 1 Floyd in the Boling Pool, at 2,500 feet. The Oxford-Southern Exploration Co. joint No. 1 Floyd was worked over and is being put on the beam at 2,775 feet. The Sun Oil Co. is building a standard rig to pump No. 2 Taylor. There are nine producers in the pool. The deepest hole is the Vacuum Oil Co.'s No. 1 Hooper, drilling at 4,416 feet in a sand. Casing was set at 4,360 feet for a test. No. 2 Hooper is waiting for cement to set, with casing at 3,706 feet. A sand showing oil will be tested. The pool is still very much of an enigma to those who are trying to develop it. Efforts to extend the limits have been futile thus far. The Texas Company and the Sun Oil Co. are starting tests on the northeast side of the dome, about 3 miles from production. The dome is the largest in the Coastal region in area, consequently its development will be slow and costly.

In the Orange Pool, the Atlantic Oil Producing Co.'s No. 4 Hager is pumping 25 bbls. at 3,750 feet. The Texhoma Oil Co.'s No. 7 Chesson is a 60-bbl. pumper. No. 3, 400 feet. No. 4 was abandoned at 4,800 feet. The Rycade Petroleum Corp. is bailing No. 2 Cow Bayou at 3,850 feet.

In the Hull Pool, the Republic Production-Houston Oil Co.'s joint No. 124 Dolbear is doing 120 bbls. at 2,250 feet, and No. 120 Dolbear is making 125 bbls. at 2,700 feet. No. 124 is bailing at 2,275 feet. The Houston Production Co.'s No. 9 Abel is making 100 bbls. at 1,000 feet. The Texas Company's No. 10 Merchant got salt water at 4,000 feet.

In the Sour Lake Pool, the Lake Graham Oil Co.'s No. 7 Bashara is good for 10 bbls. at 2,660 feet. The Minor Oil Co.'s No. 77 fee is bailing at 850 feet.

At Pierce Junction, the Gulf Production Co.'s No. 11 Taylor, a work over, is pumping 125 bbls. at 2,950 feet. The Navarro Oil Co.'s No. 2 Cain got salt water at 3,875 feet.

At Blue Ridge, The Texas Company's No. 10 Robinson is pumping 175 bbls. at 3,810 feet.

The Rio Bravo Oil Co.'s No. 47 Cotton, in the Saratoga Pool, is a 40-bbl. producer at 1,035 feet.

Batson Pool

In the Batson Pool, the Sterling Oil Co.'s No. 4 Hooks bailed salt water at 1,525 feet. The Gulf Production Co.'s No. 167 Wing is bailing at 1,140 feet, as is the Capitol Oil Co.'s No. 4 Hodges at 3,300 feet.

The Gulf Production Co. abandoned No. 11 Chapman-Bryan in the Goose Creek Pool at 4,775 feet. The Humble Oil & Refining Co.'s No. 67 Smith bailed salt water at 2,600 feet and is drilling deeper.

At Spindletop, the Baker Oil Co.'s No. 15 Trembly is bailing at 875 feet. The three deep sand wells of the Yount-Lee Oil Co. are making around 1,000 bbls. combined. Two are on the southeast flank of the dome and one on the northwest. All are making considerable salt water.

The Gulf Production Co. worked over No. 2 Smith at High Island, Galveston County, and it came back flowing 700 bbls. by heads. The Sun Oil Co.'s No. 6-C Cade sanded and is being worked over.

In the Edgerly (La.) Pool, the Green Oil Co.'s No. 7 Moore got salt water at 2,800 feet and is being drilled deeper.

The Vacuum-Gulf's joint No. 9 Miller, in the Lockport (La.) district is bailing at 4,325 feet.

In the Vinton Pool, the Gulf Refining Co.'s No. 1-A Gray is pumping 90 bbls. at 1,850 feet.

One wildcat was abandoned. The Texas Little Farms Association quit No. 1 Hawley in Hardin County, at 2,950 feet.

Miscellaneous

A total of 748 tank cars of crude were shipped from the Mirando Field (Webb and Jim Hogg Counties) during April. This is a loss of 39 cars compared with March. A total of 28 cars were shipped from Piedras Pintas during April, compared with 32 in March. The Humble Oil & Refining Co. has one deep sand well there. It is now averaging 150 bbls. per day.

The Humble Oil & Refining Co.'s No. 5 Walsh is drilling around 4,070 feet, or 445 feet deeper than the one producer. A derrick is up for No. 6 Walsh. The Grayburg Oil Co. abandoned No. 1 Haliff at 4,200 feet. It is three-quarters of a mile north of the lone well.

Drushell and others' No. 3 Drushell, in Jackson County, 7 miles west of Edna, is a wild gas well. It is estimated to be flowing 20,000,000 feet. The gas sand is around 2,700 feet. It is in a section where several gassers have been found in the past, two or three of them getting away and blowing out, flowing wild until they bridged.

Boling Pool

On the Taylor acreage, on which the first production in the Boling Pool was developed, located on the northwest flank of the dome, the Sun Oil Co.'s No. 3 Taylor is idle. No. 4 is below 3,765 feet. No. 5 is shut down at 3,975 feet. No. 6 is rigging and No. 11 is drilling around 2,800 feet. The Sinclair Oil & Gas Co.'s No. 2 Taylor is at 3,700 feet. No. 3 is below 3,100 feet. No. 4 is idle at 3,960 feet. No. 5 is drilling around 4,010 feet. A derrick is up for No. 6. The Texas Company's No. 5 Taylor is fishing at 3,670 feet. No. 8 is drilling below 3,745 feet. No. 9 is rigging. The Atlantic Oil Producing Co.'s No. 3 Taylor is shut down.

On the Hawes lease, the Humble-Gulf companies' joint No. 4 is at 2,514 feet. No. 5 is around 4,155 feet; No. 7 is drilling at 1,980 feet. A location has been made for No. 8. No. 9 is drilling around 990 feet. No. 10 is at 985 feet, with a derrick standing for No. 11. On the Floyd lease, the Oxford-Southern Exploration Co.'s joint No. 4 is drilling at 1,980 feet. No. 5 is around 1,100 feet.

The above completes the list of drilling wells within the productive area as developed to date. As already mentioned, the J. K. Hughes Development Co. is drilling No. 1 Mullins some 1,500 feet out from production. The Gulf Production Co.'s No. 1 Mick, 2 miles from production, is drilling around 1,565 feet. On the northeast side, across the river in Brazoria County, The Texas Company is rigging No. 1 Farmer and No. 1 Felder. The Sun Oil Co. is drilling No. 1 Farmer around 600 feet.

Orange Pool

On the east side of Cow Bayou, in the Orange Pool, the Gulf Production Co.'s No. 22 Hager is at 4,700 feet and No. 23 is around 985 feet. No. 9 Kishi-Lang, on the north side, is around 4,765 feet. On state land in the bayou the Rycade Petroleum Corp.'s No. 5 is around 2,875 feet. No. 1-C is showing gas at 4,350 feet and No. 4-E is being deepened. The Orange Petroleum Co.'s No. 1 Williams is around 4,355 feet. No. 12 Chesson is deepening. No. 1 Berwick is around 3,400 feet. The Texhoma Oil Co.'s Nos. 9, 14 and 15 Chesson is preparing to drill deeper. The Humble Oil & Refining Co.'s No. 25-A Chesson is sidetracking at 4,550 feet. The Supreme Oil Co.'s No. 4 Jackson is at 3,433 feet and No. 1 Bellisle of the Sun Oil Co. is at 3,765 feet. The Rex Petroleum Co.'s No. 4 Carbello is drilling around 4,825 feet. The Kishi Development Co.'s No. 7 McGuire is around 4,723 feet. The Brownie Babbittee Oil Co.'s No. 5 McLean is drilling around 2,900 feet.

Liberty County Pools

In the Hull Pool, the Republic Production-Houston Oil Co.'s joint No. 125 Dolbear set casing at 2,345 feet. No. 126 is drilling around 1,345 feet. No. 127 is at 1,434 feet. No. 128 is rigging. The Humble Oil & Refining Co. set casing in No. 3 Sterling at 4,425 feet. No. 21 Guedry is around 3,100 feet. No. 4-B Abel is at 985 feet, with a location for No. 5 Merchant. The Texas Company set and cemented casing in No. 1 Hannah at 3,850 feet. The Texas-Vacuum No. 2 Hannah is sidetracking to drill deeper. The Mecom Oil Co.'s No. 2 Taylor is deepening with a location made for No. 9. The Empire Gas & Fuel Co.'s No. 19 Barngrover is at 1,655 feet. The Houston Production Co. has a location for No. 6 Palmer on the northeast flank of the dome. On the Phoenix acreage, the Gulf Production Co.'s No. 27 is working over. No. 65 is around 3,900 feet. No. 67 is at 3,235 feet. No. 3 Thomas is at 3,010 feet. No. 17 Baldwin is below 2,135 feet. No. 17 Scarbrough is around 2,345 feet. No. 22 Morris-Phillips is at 1,900 feet.

In the South Liberty Pool, the Humble Oil & Refining Co.'s No. 1-B Deussen is drilling around 3,200 feet. The Coastal Oil Co.'s No. 1 Lecoure is idle at 2,350 feet. The Humble Oil & Refining Co. has a derrick standing for No. 2 Welder on the west side of the Trinity River. The Premium Oil Co.'s No. 1 Mitchell is rigging to start drilling north of the pool.

The Harrison Oil Co.'s No. 2 Schlender, on the southwest side of the North Dayton Pool, is drilling around 2,600 feet.

Hardin County Pools

In the Saratoga Pool, Regna Oil Co.'s No. 1 Petty is drilling below 1,515 feet. The Rio Bravo Oil Co.'s No. 5 Fountain is around 4,055 feet. The Vacuum Oil Co.'s No. 3 Teel, on the southwest side of the pool, is drilling around 4,135 feet.

In the Sour Lake Pool, the Humphrey Corp.'s No. 3 Griffin is drilling below 3,900 feet, with locations for Nos. 1 and 2. The Sun Oil Co.'s No. 1 Libbie is around 2,315 feet. The Sour Lake Oil Co. has a derrick for No. 1 Ten acres. The Peveto Oil Co.'s No. 12 Davis is fishing at 900 feet. The Yount-Lee Oil Co. is building a derrick for No. 4 Gilbert.

In the Batson Pool, the Gulf Production Co.'s No. 60 Choate is at 455 feet. The Acorn Oil Co.'s No. 55 Paraffine is in cap rock at 1,175 feet. The Kirby-Capitol Oil Co.'s No. 5 Hodges is a derrick.

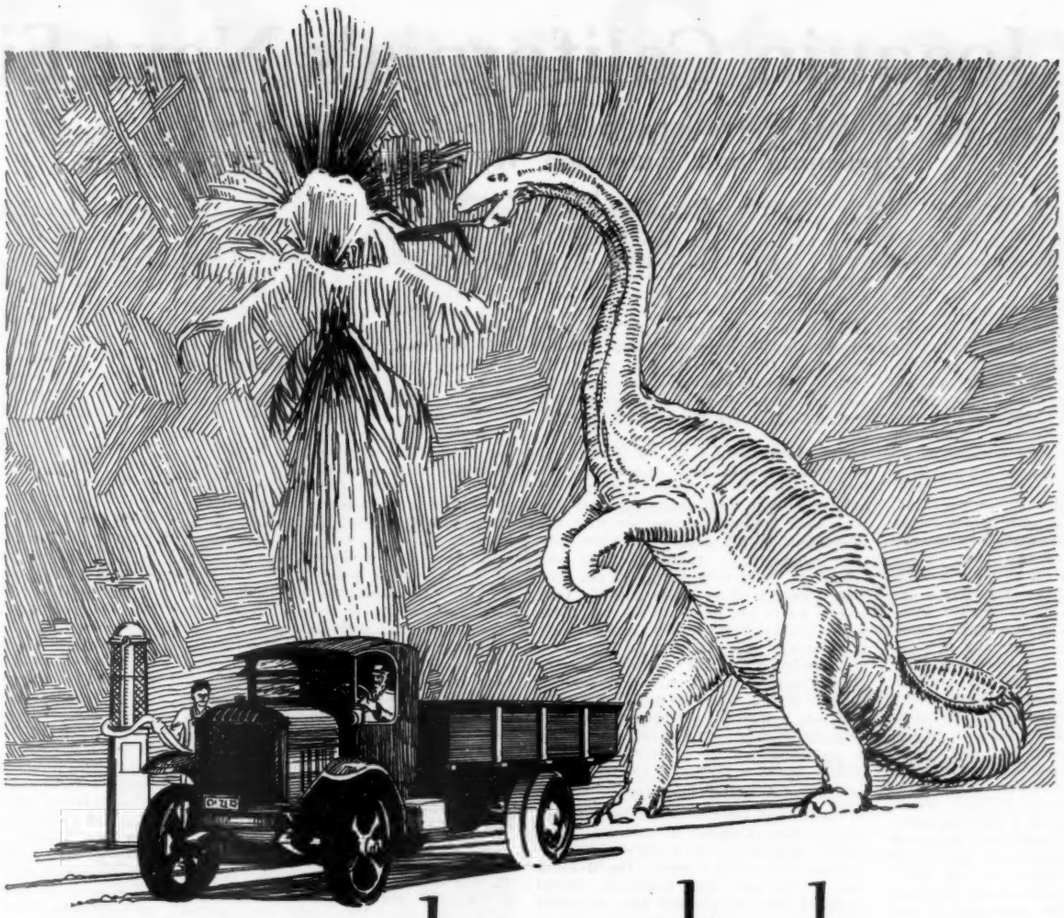
Harris County Pools

In the Goose Creek Pools, the Humble Oil & Refining Co.'s No. 68 Smith is at 4,410 feet. No. 9 is working over. No. 22 Peninsula is drilling at 2,980 feet. The Gulf Production Co.'s No. 5 Hirsh is at 3,875 feet. No. 7 Wright is around 2,235 feet. No. 33 Beaumont is around 1,980 feet. No. 12 Galliard fee is at 4,235 feet. No. 8 State Land is drilling around 3,235 feet. A location has been made for 12 Chapman-Bryan. The Sun Co.'s No. 8 Wright is at 1,545 feet. The M & B No. 4 Scorrgea is drilling around 3,600 feet.

In the Humble Pool, the Brane Oil Co.'s No. 5 Perkins is showing gas and oil around 2,640 feet. The Sun Oil Co.'s No. 33 River is drilling, with locations for Nos. 34 and 35.

At Pierce Junction, the Gulf Production Co.'s No. 18 Taylor is deepening.

(Continued on Page 117)



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San Joaquin California's Next Field?

Wildcat Operations in Valley Going Ahead Favorably
Deepening and Extension Work Receiving Attention

By L. P. Stockman
Staff Correspondent, California Fields

LOS ANGELES, Calif., May 8.—Completions throughout the state during the past week were practically on a par with those finished in the preceding seven-day period and, although there were no large wells finished during the period in question, it is believed that several new producers will be brought in at Ventura within a short time. Wildcat operators and prospectors are still dilligently at work but there is no particular area which seems assured of new production. It is true that there are one or two exceptionally promising looking areas from a geological standpoint but in not a single instance is there anything tangible upon which to base hopes of developing a new field. There have not been any new favorable development at Seal Beach, although another test will be put down at that point by the Union Oil Co. within a short time. The Manhattan Hermosa Beach area, which looks good on paper, is coming in for some play and, while several well informed geologists look for a new field in that section, actual production is not assured. Wildcat operations in the San Joaquin Valley are going ahead nicely and it would not be at all surprising if California's next field would be located in that section of the state. Deepening and extension work has been receiving considerable attention of late but it is of an exploratory nature and no effort is being made to take advantage of this means of boosting production. As a matter of fact, operators are endeavoring to hold down actual drilling work until a more favorable time. It is problematical just when the bubble will burst at Inglewood and what effect this deeper drilling and new work in the town lot area at Huntington Beach will have on state production. Much depends on the policy adopted by companies operating in these two areas and hence every effort is being made to retard work.

Long Beach

There is comparatively little new work being started in the Long Beach Field, due to the failure of wells in the northwest extension to show even a favorable production upon completion. Operators have shown a decided tendency, however, to engage in deeper drilling in what is considered by many as a last forlorn hope of getting production. So far none of the producing wells in the extension has yet been taken off the beam preliminary to being deepened and it is doubtful if any work along this line will be undertaken for another 30 days, or at least until such time as the potentiality of the McKeon zone has been determined.

During the past week, however, drilling was resumed on several incompleted drilling wells and they will be carried on down direct to the deep zone. These were originally scheduled to be finished in the upper sand but the rather unfavorable production secured has resulted in the decision to drill direct to the McKeon sand.

The Gem Oil Co. finished its No. 1 Cerritos a few weeks ago in the upper zone and, although it was originally intended to finish No. 2 Cerritos at approximately the same depth, the company has announced that this well will be carried down to the McKeon sand because of unfavorable conditions and the unusually rapid decline registered by its initial completion. George F. Getty has also decided to test out the deeper zone and he has selected No. 16 Cerritos, an incompleted driller, as his best well. Walter P. Temple has also joined in the movement to try out the deep sand and, although he finished a fairly good producer in the shallow zone several weeks ago, he will carry his No. 2 Cerritos on down. Temple has two other drilling projects in this area, No. 3 at 4,116 feet and No. 5 at 3,998 feet, and they will also be carried down to the deep zone if this sand proves commercially productive.

The McKeon Oil Co.'s No. 7 Cerritos, the well credited with discovering the lower horizon, is at present making 460 bbls. daily from 4,875 feet. The only disconcerting factor in connection with the production of this well is the water content which it is showing. This has ranged at times from 40 to 50 per cent and, although it is quite possible that bottom water has been encountered, there is no conclusive evidence to substantiate this theory. As a matter of fact it is not absolutely certain whether the production is coming from a well defined oil zone or merely from several lens. John McKeon, however, is of the opinion that deep sand production will be commercially profitable and he is accordingly proceeding ahead with Nos. 8 and 9.

A Better Producer

The United Oil Co. had a little better success than McKeon in that its No. 2 Taylor secured a very much cleaner production when given a test in the McKeon zone. This well was originally drilled to 5,050 feet but plugged back to 4,880 feet when the McKeon Oil Co.'s No. 7 Cerritos showed that production might be secured at this depth. No. 2 Taylor, although it only has approximately 95 feet of sand and shale from which to draw, is making 460 bbls. daily, approximately 10 per cent of which is water. The production resulting from the drilling of these two deep zone wells, although far from being satisfactory, is directly responsible for the deepening campaign which is at present getting under way. The United has two other potential deep sand tests in No. 1 American and No. 1 Cook, both of which recently passed the 4,300-foot level.

It is really a little too early to say what effect this deep zone will have on future production of the Long Beach Field but several operators have expressed grave doubts that it will warrant the drilling of even a small number of wells. This is based upon the unusually small penetration afforded, approximately 100 feet in McKeon Oil Co.'s No. 7 Cerritos and 95 feet in the United Oil Co.'s No. 2 Taylor. This pessimistic outlook, while it might prevent the deepening of present producers, will probably not retard work on incompleted drilling wells. As a matter of fact, the completion of No. 7 Cerritos and No. 2 Taylor has proven somewhat of a stimulant and drillers, which were originally scheduled to be finished in the upper zone, are being reamed in order to permit the carrying of larger pipe and completion in the deep sand.

There are at present about 75 wells at various stages in the course of drilling and it is quite possible that many of them will pass up the first zone and drill direct to the McKeon sand. It has been customary in the past to finish wells in the northwest extension with astring of 6¼-inch but from now on 8¼-inch will again come into common usage in order to permit another cement job. The Wilshire Oil Co. is apparently banking on deep zone production as the company is carrying 8¼-inch in every one of its eight drillers. This concern has not yet finished a single producing well in this section and, while it had apparently entered the extension too late to participate in the flush production, the company may get in on some of the deep sand play.

Largest Well of Week

The largest well finished during the past seven-day period was the Hornaday Oil Co.'s No. 1 Cerritos, drilled to 4,482 feet and finished with an 8¼-inch water string and a 4½-inch perforated liner. It is pumping 246 bbls. daily, the oil testing 20.9 degrees and showing a cut of 4 per cent. Particular attention is directed to the size of the water string used, 8¼-inch, because of the fact that a hole of this dimension can be deepened if later developments warrant. George W. Johnson and the Julian Petroleum were the only two other operators which finished wells during the week to follow a similar procedure, the balance adhering to the old policy of carrying 6¼-inch. Johnson's current completion, No. 4 Cerritos, was drilled to 4,370 feet, from which depth it was given a preliminary test. It is not being listed for completion, however, as it will require a little further work.

Other Completions

The Julian Petroleum finished its No. 2 fee at 4,445 feet and the well is pumping 184 bbls. of 21.3 gravity oil daily. No. 1 on this property is being carried down for a deep test. The Lindauer Oil Co.'s No. 6 Cerritos, drilled to 4,445 feet and finished with a 6¼-inch liner, resulted in a 100-bbl. pumper, the oil testing 20.8 degrees and showing a cut of 5 per cent. The Modoc Oil Co. drilled its No. 5 Cerritos to 4,437 feet and finished it with a 4¼-inch liner, 126 feet of which was shop perforated. The output was 138 bbls. of fairly clean 22.1 gravity oil daily. Fred S. Roberts got a 140-bbls. pumper when his No. 1 Cerritos was put on the beam at 4,410 feet after being finished with a 4¾-inch liner. A. J. Delaney, the largest individual operator in the extension, has reduced his drilling operations to a minimum and at the present time is only running two strings of tools. During the early part of the week he finished No. 33 Cerritos at 4,600 feet and it started off pumping 190 bbls. of 20.6 gravity oil daily.

Several of the wells expected in within the next few days will be completed without liners and operators will resort to the swabbing method of production. It is believed that this will result in better production, eliminate the cost of a liner and permit deeper drilling at less expense, inasmuch as it will not be necessary to sidetrack or pull out liners if the McKeon zone proves commercially productive. The Robertson Oil Co. will try this open hole swabbing method when finishing its last producer in the extension. This well, No. 5 Cerritos, will be swabbed from 4,530 feet, the open hole being between this depth and 4,268 feet, at which point the 8¼-inch water string has been landed. The Ring Petroleum will also follow this procedure and swab for production in the open hole between 4,255 feet, the shutoff point, and bottom at 4,489 feet. The Painted Hills Oil Co. has just landed a string of 6¼-inch at 4,370 feet and is considering the advisability of eliminating a liner and swabbing instead of pumping. This method of production has not yet been thoroughly tested out but may give some relief to producers if not engaged in promiscuously.

The Retsof Drilling Co. finished two 100-bbl. pumpers during the week, Nos. 81 and 82. The company deviated somewhat from the usual procedure in finishing the former in that it was drilled to 4,475 feet and put on the pump barefooted. A string of 6¼-inch, landed at 4,280 feet, left 195 feet of open hole. No. 82 Cerritos was finished in the usual manner, being drilled to 4,404 feet and completed with a 6¼-inch liner. The California Petroleum has not yet found any favorable indications in its northeastern outpost, No. 1 Jotham Bixby, notwithstanding the fact that the bit is nearing the 4,000-foot level.

Huntington Beach

The two stringent ordinances recently enacted by the City Council at Huntington Beach have had a tendency to hold up prospecting work in the town lot area now available for work as a result of the lifting of drilling restrictions which have heretofore prevailed in that area. Because of the rigid restrictions placed on drilling by the City Council, operators have shown some hesitancy in starting work and this is not surprising because of the present unsettled condition. Several attorneys are of the opinion that the two emergency ordinances enacted by the city trustees are null and void because the measures were passed on their first reading contrary to the city's charter and also because of the fact that the board met in the city auditorium instead of in the council chamber at the city hall, as prescribed by law. The city trustees, on the other hand, will stand their ground and have asserted that nothing but a Supreme Court test will change their position in the matter. In the meantime they will continue to enforce the ordinances enacted and this will, of

(Continued on Page 119)

Tanker Shipments From Los Angeles to Atlantic and Gulf Coast Ports

Commodity—	Total This week	Daily Average	Total Last week	Daily Average	This year To date	Same time Last year
Crude oil	328,832	46,976	69,217	9,888	4,306,716	6,377,294
Fuel and gas oil	434,423	62,060	151,089	21,584	3,367,023	237,873
Gasoline	293,765	41,966	.....	.....	2,118,959	1,873,620
Tops	.....	.....	.....	.....	74,619	160,730
Coastwise—						
Crude oil	387,658	55,380	440,788	62,970	7,798,647	9,992,456
Fuel and gas oil	200,986	28,712	72,463	10,352	2,911,529	4,231,810
Gasoline	98,911	14,130	99,615	14,231	2,528,134	1,733,785
Kerosene	46,729	6,676	6,876	982	1,562,268	85,645
Tops	.....	.....	118,776	16,968	2,328,820	62,970
Exports—						
Crude oil	130,476	18,639	431,676	61,668	1,424,820	793,323
Fuel and gas oil	136,667	19,524	244,515	34,931	5,422,923	4,592,076
Gasoline	137,671	19,667	101,604	14,515	1,630,522	1,300,814
Tops	.....	.....	.....	.....	.....	170,407
Kerosene	.....	.....	.....	.....	758,018	659,396

Tanker Shipments From San Francisco to Atlantic and Gulf Coast Ports

Fuel and gas oil	.....	.....	.....	.....	359,177	.....
Gasoline	156,178	22,311	.....	.....	592,094	332,906
Tops	.....	.....	.....	.....	73,698	466,075
Lubricants	.....	.....	.....	.....	145,088	159,968
Coastwise—						
Fuel and gas oil	63,715	9,102	243,004	34,715	1,443,868	1,195,340
Gasoline	28,223	4,032	44,872	6,410	1,180,226	946,376
Kerosene	.....	.....	4,047	578	130,410	119,037
Exports—						
Fuel and gas oil	260,416	37,202	108,106	15,444	1,262,921	570,162
Gasoline	...	...	23,225	3,318	535,178	228,401
Kerosene	51,080	7,297	210,005	30,001	699,092	282,026
Lubricants	.....	.....	.....	.....	.....	243,602

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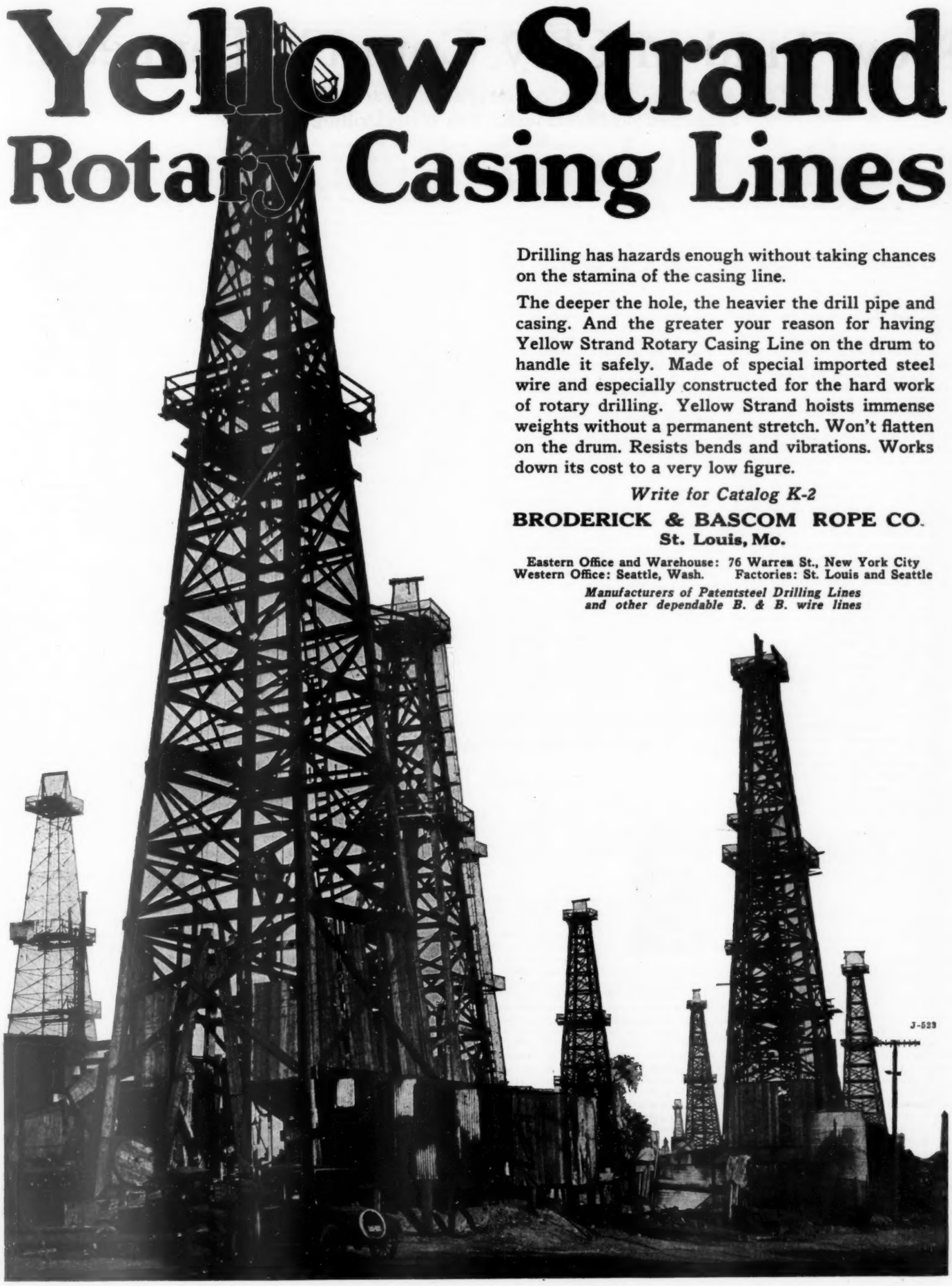

New Find in Clay County, Tennessee

Alexander Test on Stover Farm, Near Willow Grove, Estimated 500 Bbls. Flush. Ten Wells Drilling in County

BOWLING GREEN, Ky., May 10.—Although a lesser number of completions were reported from the Kentucky Field during the week, it does not mean that work is slackening up by any means, as the drill is getting more active as the weather improves. The mud and water in the extreme eastern section is the cause of a scarcity of completions, as the western and central sections did their bit. Up to this time the operators in the hills of the eastern part have had a hard time in moving equipment, the hauls being such a long distance from railroad points, and the roads are bad enough when dry.

In the southeastern portion of the State, about a year or so ago the Standard Oil Co. of Kentucky drilled a wildcat to a depth around 1,400 feet on the Foreman lands, which has since been idle. This venture was on Sinking Creek, and reports are that within a few days the old hole will be deepened with expectations of encountering a deeper pay sand. McKee and Dizney have resumed drilling on the Dizney tract, as Bailey Switch, in the same county. New work is expected soon to be started in the Indian Dome region of this county.

In the Big Sandy area of Lawrence-Johnson-Magoffin Counties, much new work is being planned by the Swiss Oil Corp., Garrison & Townsend, Cumberland Petroleum Co., Petroleum Exploration Co., Keaton Oil & Gas Co., Clyde Oil Co., Kentucky-Indiana Oil Trust, Bed Rock Petroleum Co., R. G. Gillespie, Hudson & Collins, Elkhorn Coal Co., Model Oil Co., Oliver Jenkins, and others. Parts of Lee-Owsley Counties are to be more thoroughly tested than ever before, there being much virgin territory to be given tests. More work is also planned for the Irvine Field of Estill County as well as Powell and Wolfe Counties to say nothing of Elliott, Carter and other counties adjacent to the Big Sandy Valley.

Week's Work

During the week a total of 16 completions were reported in the Kentucky-Tennessee Field, 12 being oil wells with a flush of 615 bbls. and three dry holes. This is a decrease from the previous week's figures of three completions, three less oil wells, 535 bbls. more flush production; one less dry hole and one more gas well. Of this number, the Tennessee Field had one well with a flush of 500 bbls., the others being in Kentucky. These wells were distributed among the various counties of Kentucky and Tennessee, as follows:

County—	Comp.	Prod. Wells	Prod.	Dry	Gas
Barren	5	5	51	0	0
Ow'sb'o dist.	4	2	25	2	0
Warren	3	3	35	0	0
Allen	2	1	4	1	0
Cumberland-Monroe	1	0	0	0	1
Tennessee	1	1	500	0	0
Total	16	12	615	3	1
Last week	19	15	80	4	0
Difference	3	3	535	1	1

Tennessee Gusher

Another new find of considerable importance has been made in the eastern part of Clay County, Tennessee, where A. A. Alexander and others' test on the Jim Stover farm, about a mile northwest of Willow Grove and south of the Obey River. It hit the pay sand at 760 feet and drilled about 2 feet into the sand and started flowing. It was choked down to a one-half-inch flow, but at this it made so much oil it was entirely shut off. The Pencil Cave was found at 515 feet. The pay is 245 feet under the Cave which is a new level for production in that area. At 150 feet under the Cave, this well found 18 feet of the sand that is producing in Carnahan & Horn's Petway Dennis well, but in this Stover well it was dry. This well will, according to reports, easily make 500 bbls. flush. According to the Lillydale Quadrangle Map of the Tennessee State Geological Survey, this Stover well is located on the edge of a syncline. The location, however, is on a well defined structure that is not shown on the map.

The bringing in of the Stover farm well and the only recently drilled by Carnahan & Horn on the Petway Dennis lease in the immediate vicinity of Willow Grove, makes that area of Clay County look inviting. It also brings two important and productive pools to the front in this county for immediate development, the other being the Clark Pool, located approximately 7 miles west of Willow Grove, then adding the Tinsley's Bottom Pool, in the same county, there is a reason for the wildcatting that is under way.

A. H. Heisey and others of Newark, Ohio, a large operating concern in the Central Ohio Field, along with John Elder of Junction City, Ohio, are reported moving an outfit to start a test on the Monroe Anticline in Overton County, to the southeast of Clay County. H. R. Guard of Livingston, Tenn., has signed a contract for a well to be drilled on the Copeland Cove Anticline, in the same county, and the rig is now being shipped in.

In the Willow Grove area of Clay County, the Carnahan Oil Co. is about due to complete its well on the Widow Hargrove farm, which is an offset to the Petway Dennis well of the same company, and a good well is expected.

About 10 drilling wells are under way in Clay County at this time. Mitchel and others are drilling a test on the Riley Kerr farm, on Lower Kettle Creek, just south of the Kentucky line, and in Clay County. Duncan and others are reported working at a test on the Windle farm, in Overton County, about 16 miles northeast of the Tinsley Bottom Pool, of Clay-Jackson Counties.

Western Kentucky

The western division of the Kentucky Field is maintaining its usual quota of completions and with the bettered weather conditions new work is springing up in numerous areas that means greater activity from now until late in the fall. Barren County leads in all branches of the development work, with Cumberland-Monroe Counties and the Owensboro district following closely. Warren County is also taking a spurt and much inside drilling will be done, that is on leases that have only been partially developed, to say nothing of the wildcat work that will be done. The same conditions prevail in the Owensboro district, Cumberland-Monroe, Allen, Barren and others. No big wells are brought in, but those that are showing oil are usually steady pumpers when on the beam.

Barren County

In the Gorby Pool, in Barren County, the Lew J. Emery, Jr., Sons Co.'s No. 27, on the Depp & Greer land, after shot, is reported at 8 bbls., with No. 24 about the same caliber. J. W. Porter's No. 15 McGlochlin farm, shot in the 65-foot sand is a 6-bbl. pumper, with No. 16 drilling. Hiland Oil & Gas Co.'s No. 16 Casady lease, is below the black shale formation.

In the Emery-Moore Pool, Ziegler Brothers' second test on the Boyd farm is rated at 25 bbls. No. 1, same farm, made around 20 bbls. T. L. Gorby's No. 2, on the W. E. Steffey farm, found the black shale at 207-262 feet, and at 12 feet in the sand makes a very nice showing, at a total depth of 274 feet. Houchins' Leasehold Co.'s No. 10 Mayfield is due for completion, while Gillespie and Trout are nearing the coveted spot for production. Fred C. Moore's No. 7 Bruton, found the black shale at 230-280 feet and at last report was down around 350 feet.

In the Hall-Baker Pool, Harrington & Norris Brothers' No. 3 White and Smith farm, has been completed and estimated around 3 bbls.

In the Lecta Pool, 3 miles east of Glasgow, the Esslinger Oil Co. had a very light showing in the shale sand, but reported drilling below 520 feet.

Owensboro District

Two completions were made in the Owensboro district property which are producers, and two dusters are reported on the outer edge of the district. One of the dusters is reported near Taffey, in Ohio County, and the other near Zion, in Henderson County.

C. E. Daugherty and others' No. 10, on the Widow Crowe lease, and 200 feet north of No. 2 on the Laura Mercer farm, is reported at 15 bbls. from the Barlow sand. No. 11 will soon start drilling.

Pennsylvania-Indiana Syndicate's No. 3 Laura Mercer farm, and 400 feet of No. 2, same farm, is completed and reported at 10 bbls. from the Barlow sand.

There are 21 strings of tools in the Owensboro district at this time. There are 12 strings running and 9 idle, which are also expected to get busy soon, now that the roads have improved so materials can be moved to better advantage.

The Chicago Petroleum Syndicate's No. 4 Gunther-Gant lease, in the Swope Pool, east of the Ellis lease, is a combination well, having found pay sands in both the Jett and Barlow formations and reported looking as good as either Nos. 2 or 3, on the same lease. No. 1 was a duster. Drilling in No. 4 was delayed and a disastrous fire was narrowly averted. Drillers struck a big gas pocket, and workmen repairing tools nearby accidentally ignited the gas, which shot up in the rigging. By attaching a pipe that diverted the gas another way the danger was quickly overcome. The well is being put on the pump. No. 5 will be started as soon as No. 4 is connected up. This company has been delayed with its No. 1, on the Mrs. Nannie Bunn 120 acres, north of the Ellis farm, by some broken parts to the engine, but is drilling again.

The well in the northeast corner of the Askins farm, being drilled by Cornell & Weatherholt, has shut down at 735 feet and failed to find a pay sand. Whether or not it will be drilled deeper remains to be seen, but the owners report they will drill another test on the farm regardless of the No. 1's outcome. The Askins farm adjoins the Gunther-Gant farm.

The second well of J. M. Loman, trustee, on the Joe Bob Ellis farm, adjoining the Gunther-Gant farm, is in the Barlow sand and all indications are for an average producer.

In the Pellville Pool, the Leeper Oil Co.'s No. 1, on the Monroe Colyer lease, is in the sand and showing for an average producer in the Jett sand. This is located in Daviess County, near the Ohio County line, and forms one of a series of good producers by this company. This is the initial well drilled on this particular lease, but it adjoins the J. S. Colyer lease, whereon are several good producers, some in Daviess County and some in Ohio County.

The White Plains Oil & Gas Co. is due to complete its No. 3, on the J. J. Midkiff lease, and 400 feet southeast of No. 2. C. A. Leeper is drilling No. 8 Lon Helm lease, in the Pellville Pool.

Cumberland-Monroe-Adair

There is considerable excitement at this

(Continued on Page 113)

KNOX COUNTY, INDIANA, SHOWING EAST OF ALLENDALE, ILLINOIS, FIELD

By Whit

Staff Correspondent, Central West Fields

FINDLAY, Ohio, May 10.—The outstanding feature of the old Lima Field of northwestern Ohio for the week was the completion of a well above the average in territory that has been overlooked and sadly neglected these many years, and may bring about an active drilling campaign between Toledo and Woodville.

The new well was drilled by Lantz, Schultz and others on the H. C. Michelson farm, Section 26, Lake Township, Wood County, and about a mile south of the small hamlet of Latcha some several miles to the south of Toledo. For years this territory has been somewhat condemned, although the writer has always had faith in parts of the township which lie between the Wood County Field proper and the producing areas of northern Ottawa County, and that of the East Toledo Field and on the south of the Woodville Field of Sandusky County. This well, at 30 feet in the Trenton, started flowing terrifically both oil and water. Not looking for a well of this kind no preparations were made to care for the output and ditches were used as well as a plot of 1½ acres of ground banked to catch the flow, and over this area there was fluid to the depth of 18 inches. The well let up to some extent and flowed by heads. Tankage was erected and the Buckeye Pipe Line Co., under the supervision of James June, district superintendent, soon had the well putting its oil in tanks and connections made to the pipe line. Owing to the water a correct gauge of the well could not be had, but it is conservatively estimated around 100 bbls. During the first 12 hours the owners were unable to get the well under control. The news soon spread and many people visited the site. Considerable oil was saved which was pumped from the ditches and the 1½ acres of ground. The well lies between the Pennsylvania and the Hocking Valley Railroads. Leasers were plentiful, taking everything available and it would not be surprising to see quite an active drilling campaign that will extend into Ottawa and Lucas Counties and connect up the gap between the developments of Wood, Lucas, Ottawa and Sandusky Counties that has been an eyesore for more than 30 years.

Lima Field Completions

Eight wells were reported completed from the Lima Field during the week, including the well above mentioned. In Perrysburg Township, Wood County, the Oko Oil & Gas Co., of Lima, Ohio, of which Mack P. Colt is president, has drilled in a third well 1,250 feet from the south line and 290 feet from the east line of the Louisa Deverna farm, in the southeast quarter of Section 29, and east of the Dixie Highway, with a flush of 20 bbls. This is in what is known as the Lydorf area and was another spot overlooked for many years, being to the west of the new well in Lake Township, same county. Top of sand in the Deverna

(Continued on Page 102)

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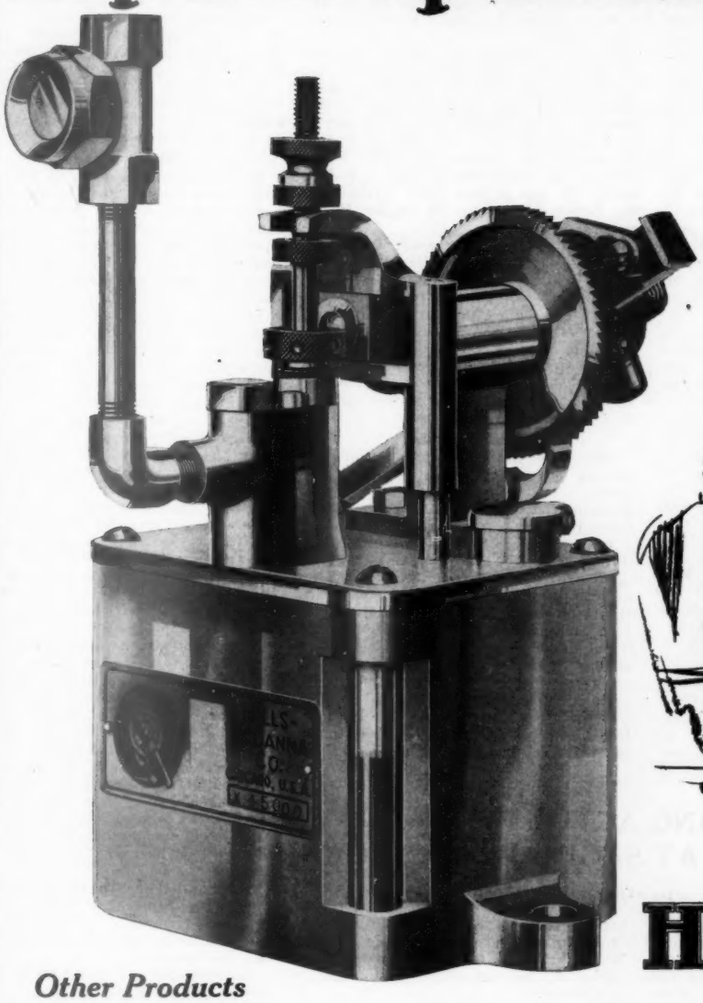

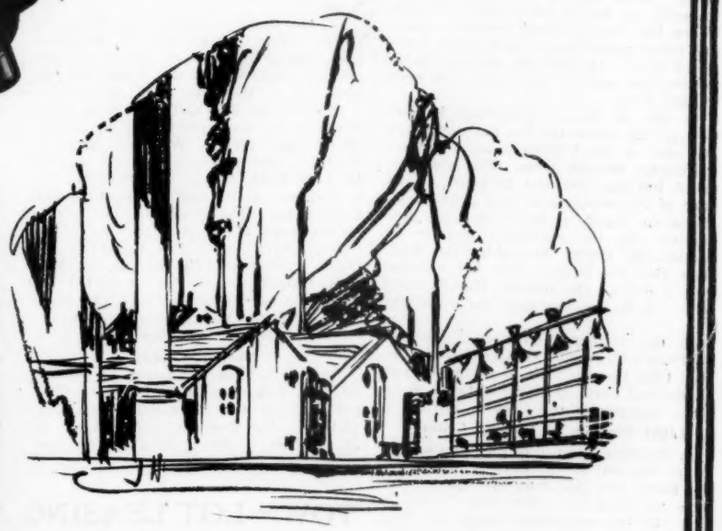

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Testing Leases in Southeastern Ohio

Enough Territory Found Productive to Make Room for a Lot of Work When Market Warrants Development

By D. S. Wakenight
Staff Correspondent, Eastern Fields

PITTSBURGH, Pa., May 10.—In a few localities there is now some test work starting in undefined territory. Work of this kind is located principally in the lower West Virginia counties. There is a lack of interest in the wells under way and starting. In the old district, the best that can be expected are light wells — so light as to require many months before the money invested in drilling will be paid back.

The deep sand territory in southeastern Ohio completed but one good producer. When market conditions warrant it work in this county will increase. There has been enough territory tested and found productive to make room for a lot of work. In fact, for the past three months the most of the work has been of that kind.

In Lot 16, Hardy Township, Holmes County, the Globe Oil Co. has completed and shot in the Clinton sand a test on the George Schuler farm. The well produced 100 bbls. the first 24 hours. Like most of the completions it is a first test, trying out leases to see if they are productive. In the northwest quarter of Section 22, Hardy Township, the East Ohio Gas Co. drilled into the Clinton sand a test on the Charles Hammonthes farm. It is a gasser good for 1,000,000 feet.

In the northeast quarter of Section 17, Prairie Township, Holmes County, the East Ohio Gas Co.'s No. 6 on the Wayne F. Kendall farm is showing for a 6 or 8-bbl. pumper in the Clinton sand.

Light Pumper in Licking County

In Franklin Township, Licking County, Smith, Hazlett & Co. have completed in the Berea grit No. 3 on the Austin Orr farm not good for more than 3 bbls. a day. In the southwest quarter of Section 21, Jackson Township, Knox County, the Arkansas Fuel Oil Co. drilled No. 15 on the L. V. Dugan farm through the Berea grit. It produced 15 bbls. after shot. In the southern part of Section 31, Independence Township, Washington County, the First National Bank of Marietta has a duster at 31 Mendenhall farm.

In the southeast quarter of Section 6, Newton Township, Licking County, Harry Farmer and others completed a second test on the Orie Pound farm. It has been shot in the Berea grit and produced 6 bbls. the first 24 hours. The location is inside of defined limits. One mile east of Joy, Section 23, Marion Township, Morgan County, the Bowie Oil & Gas Co. has completed in the stray sand a test on the George Huffman farm. It is a gasser good for 380,000 feet.

In Newport Township, Washington County, G. W. Kesselring's No. 19 on the A. B. Little farm is good for 3 bbls. a day in the Keener sand. In Section 1, Lawrence Township, Washington County, West & Co.'s test on the Philip Bowersock farm is dry in the Mitchell sand. It will be drilled deeper. In Section 23, Ludlow Township, the Bentz Oil Co.'s test on the H. H. Holland farm is a duster in the Squaw sand. In Newport Township, the River Gas Co.'s test on the A. D. Whiston farm is a very light pumper. In the same township, F. Rosekathen has a 2-bbl. pumper at No. 5 on the Mary Whiston farm.

In the northeast quarter of Section 21, York Township, Morgan County, Ohio, the Sun Oil Co. has completed in the Berea grit a test on the Edward Fye farm good for 5 bbls. a day.

Niagara Lime Gassers

In Section 13, Adams Township, Guernsey County, the Logan Gas Co.'s No. 3 on the Seward R. Williams farm is a gasser in the Niagara lime good for 2,250,000 feet. In Section 15, same township, the Ohio Oil Co.'s second test on the Frank Ankrum farm is a light gasser in the same formation.

The Ohio Fuel Gas Co. is very active in this township and county. This company is drilling at 4,000 feet at a test on the Lola Shriver farm. The test on the C. O. Watson farm is drilling at 2,900 feet. The test on the W. C. Norrison farm at 2,800 feet; No. 1 J. C. Ankrum, drilling at 1,000 feet; No. 1 Adam Woodburn, started to drill, and rig completed for a test on the W. L. Ford farm. Locations have been made for tests on the Riley Moore, Anna M. Jerels, George Bell and G. C. Smith farms.

In the same township, the Ohio Oil Co. is drilling on the Alice B. Mahaffey farm, the Finley Keith farm and has made a location on the James Mercer farm. T. A. Matthews & Co. has started to drill on the Marshall M. Gibson farm. Stoltz & Co. has spudded in on the H. W. Fulton farm. Withmer Property Trustees have made a location on the R. A. McBride farm. The Pure Oil Co. is still idle at its test on the Elizabeth Irwin farm. The Cambridge Oil & Gas Co. is down 3,207 feet on the L. W. Utterzumber farm. The Big Lime Oil Co. is drilling at 1,125 feet on the William Knight farm. The Ohio Oil Co. has a rig completed on the T. B. Speer farm. The location for a second test on the same farm has been made.

Morgan County

In the northeast quarter of Section 30, York Township, Morgan County, Ohio, the Swingle Oil & Gas Co. has completed in the Berea grit No. 6 on the H. D. Fletcher farm. It is a fair gasser. Three miles west of Chesterhill, Section 29, Marion Township, Morgan County, the Cameron Oil Co.'s test on the H. D. Huffman farm is a light gasser in the stray sand.

In the southeast quarter of Section 28, Perry Township, Perry County, the Chartiers Oil Co. has completed and shot in the Clinton sand No. 197 on the Hocking Valley Products Co.'s property. It produced 27 bbls. the first 24 hours. In Section 16, Brown Township, Knox County, the East Ohio Producing & Refining Co. has a very light pumper in the Berea grit at No. 16 on the H. S. Snively farm.

In Section 29, Alexander Township, Athens County, the Biddle Oil & Gas Co. is drilling another test on the John F. Biddle heirs' farm. In Section 30, Perry Township, Monroe County, the Jumbo Oil Co. and others are drilling a second test on the E. M. Ackerman farm. In Reading Township, Perry County, the Planet Oil Co. and others are building the rig for a test on the O. J. Miller farm.

West Virginia

The West Virginia fields completed nothing better than light pumpers and gassers. On the waters of Poplar Fork, Scott district, Putnam County, the Charleston-Dunbar Natural Gas Co. drilled a second test on the Gabe Smith farm through the salt sand and dry. On the same stream and district, 500 feet northeast of the duster, Smith, Nichols & White have started to drill a test on the John Murray heirs' farm. On Mud River, Grant district, Cabell County, 2,500 feet northwest of the test on the Frank Fowble farm, Lewis Sweetland & Co. has completed in the Berea grit a test on the Garnett Morrison farm. It is a fair gasser. Located 3,000 feet north of this well, the Monicel Gas Co. has started to drill a test on the J. D. Hall farm.

Duster in Pleasants County

In Grant district, Pleasants County, K. F. Krippen has completed in the Horse Creek sand No. 3 on the P. H. Racer farm. It is a duster. On Rush run, Smithfield district, Roane County, Godfrey L. Cabot has completed a light gasser in the Big Injun sand at a test on the Clark Buther farm.

Wood County

In the Big Injun Pool, Williams district, Wood County, the Hoaglan Oil Co. has completed in the first Cow Run sand No. 4 on the Charles Lauer farm good for 2 bbls. a day. In the same pool and district, the Big Run Oil Co.'s No. 4 on the William F. Harris farm is a duster in the first Cow Run sand.

In Union district, Ritchie County, the Hope Natural Gas Co.'s second test on the Lonnie Bee farm is a gasser in the Big Injun sand. The same company has the rig completed for No. 4 on the L. M. Fhret farm. The Manufacturers Light & Heat Co. has a rig up for a test on the Lee Flesher farm.

On the north fork of Hughes River, Grant district, Ritchie County, the Hope Natural Gas Co. has drilled a test on the B. F. Phillips farm into the salt sand. It is a gasser good for 750,000 feet. In Big Sandy district, Kanawha County, the Oakland Development Co.'s test on the J. A. Carter farm is a gasser in the Big Injun sand good for 600,000 feet.

In Jefferson district, Lincoln County, the Bear Branch Gas Co.'s No. 3 on the Spencer Hill farm is a fair gasser in the Berea grit. In Logan district, Logan County, Zonheimer & Gibbs have drilled No. 3 on the Cole-Crane tract to a depth of 2,250 feet and shut down. In Sherman district, Boone County, the Pure Oil Co. is fishing at 1,800 feet and No. 26 on the Lafollette & Robson tract.

The Big Injun sand pool in Henry district, Clay County, is furnishing completions with a good deal of regularity. Nearly all are located in defined territory, or one location in advance of production.

The South Penn Oil Co. has completed in the Big Injun sand No. 5 on the R. S. Kyler farm good for 25 bbls. a day. The location is 310 feet south of the first test on this farm.

Located 550 feet northwest of the first test on the R. S. Kyler farm, the South Penn Oil Co. has completed No. 6 on the same farm good for 25 bbls. a day. This, and the salt sand pool in Scott district, Putnam County are the only two that are undefined.

Ritchie County

In Grant district, Ritchie County, the Hope Construction & Refining Co. has completed in all sands, to a total depth of 2,500 feet, a test on Crofton heirs' farm. It is dry in all sands and has been plugged and abandoned. On Oil Spring Run, same district, Ira Williams is moving in a drilling machine to location for No. 32 on the West Virginia tract. The Hope Construction & Refining Co. has made the location for a test on the W. F. Valentine farm, on Goose Creek, Grant district.

On Raigens run, McClelland district, Doddridge County, the Norbell Oil & Gas Co.'s test on the I. N. Underwood farm is through the Big Injun sand and good for 4 bbls. a day. Two miles west of Pine Grove, Greene district, Wetzel County, the Hope Construction & Refining Co.'s test on the Henry Balwanke heirs' farm is a gasser in the Gordon sand at a total depth of 3,070 feet.

Late Completions

At the close of the week of development work the southeast Ohio fields com-

(Continued on Page 110)

TOWN LOT LEASING ACTIVITY BEGINS AT SAGINAW, MICHIGAN

By Whit

SAGINAW, Mich., May 10.—Leasing is being done at a rapid clip in the new Saginaw Field and it looks as though an active summer drilling campaign will soon start. Up to the present time seven completions have been made and all are commercial producers, which is saying a great deal for any new field, especially in Michigan, where the trade has never expected to find anything worth while. Wells have been drilled over many counties throughout the Wolverine State but the Saginaw development is the first to mean anything, and for that reason operators have kept away, thinking that it was only another flash in the pan as has often been the case, but there are now indications that the field is a stable one. The wells are not large or of the gusher type. The formation in which the oil is being found is enough for any of the old-timers to realize that it is bound to develop into something worth while, in fact it already has. Leases for miles around the producing wells have been taken up and recently taking in town lots has begun to the south of the development and leasing is going on as far north as Bay City and in the point running out to the southeast of Saginaw Bay. The supposition is that the city of Saginaw lies over what will prove a worth-while oil field.

The Saginaw Prospecting Co., pioneer of the Saginaw Field, has just taken a lease on a parcel of land at 1029 Barnard Street which calls for drilling operations within six months. This is in the corporate limits of Saginaw. It looks as though a development something like the West Park Pool, in Cleveland, was to be opened up but for oil instead of gas as in Cleveland.

New pumping equipment is being installed in the initial venture of the Bliss Petroleum Co., on the Casper Ulrich farm, in the northwest corner of the southeast quarter of the northwest quarter of Section 14, Saginaw Township. This is the well that showed an average production daily for seven days of 26 bbls., good enough for any new field.

At the present time there are seven operations under way. The Sun Oil Co. is working on No. 1 John Schonteit 20 acres and No. 1 Adam Nuermyer 20 acres, in the southeast quarter of Section 11, both being offsets to the Weiss farm well owned by the same company. The Sun Co. secured quite a number of leases well scattered over the territory and has room for more than 100 wells. The Saginaw Prospecting Co. also has a large scattered acreage as has the Bliss Petroleum Co. and Ohio Oil Co. The Saginaw Prospecting Co. is working at No. 1 on the Northmoor subdivision and on the John Palvas farm, the latter bieng a western offset to the Ulrich farm well of the Bliss Co. The Bliss Petroleum Co. is drilling a wildcat over a mile north of the Sun Co.'s Weiss farm well and on the Carl Boldebuck 160 acres, Section 2 and starting a second test on the Casper Ulrich farm, Section 14. The Sagi-

(Continued on Page 108)

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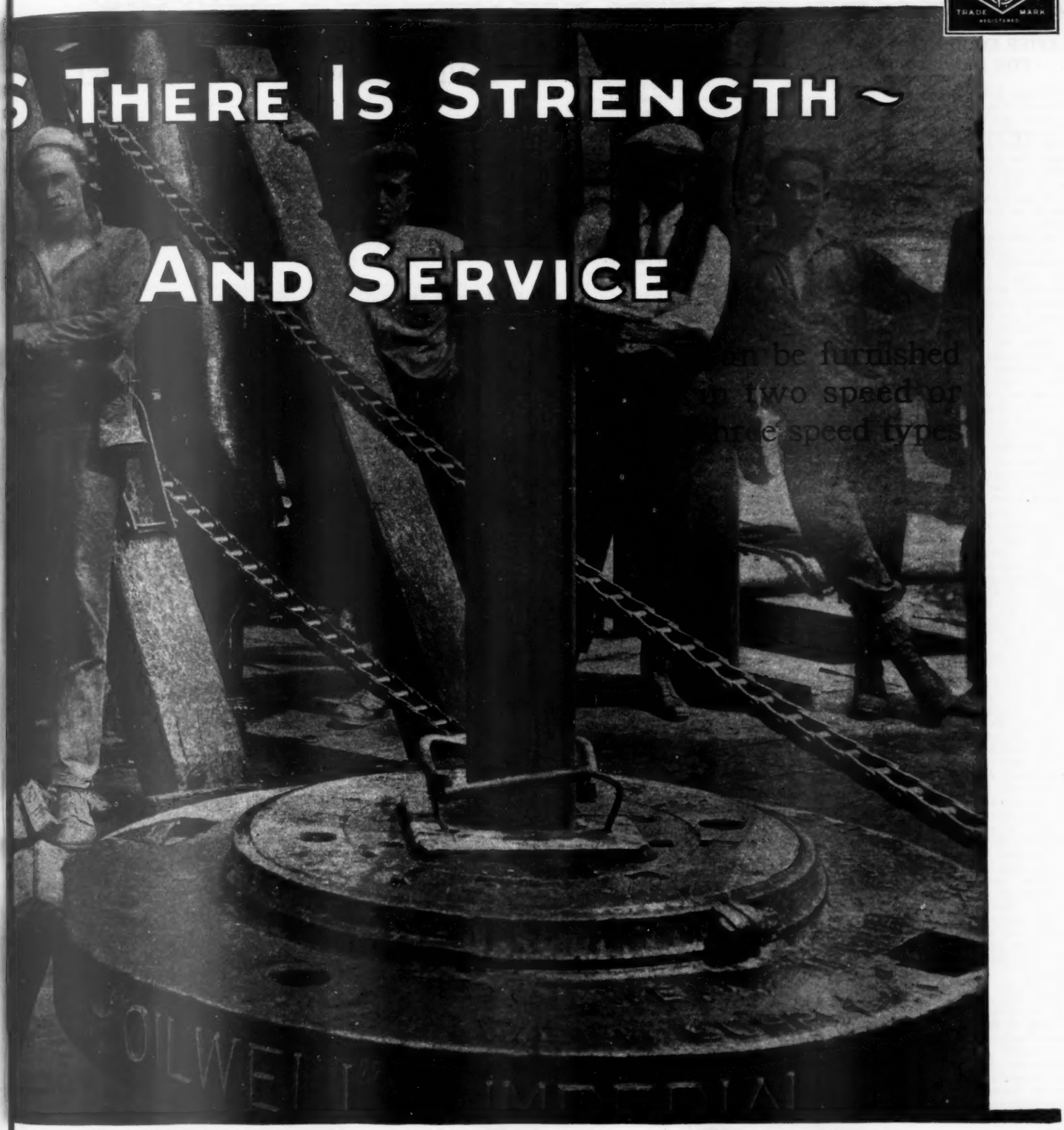

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NATURAL GAS DEVELOPMENTS

HEAVIER EQUIPMENT FOR RANGELY FIELD

DENVER, Colo., May 8.—Tide Water Associated Oil is preparing to conquer the tremendous gas pressure of the Rangely Field in northwestern Rio Blanco County with the heaviest drilling equipment ever brought into Colorado, and 800 tons of material have been landed at Dragon, Utah, on the Uintah Railroad, 3 miles west of the Colorado state boundary, to be hauled to the property, a distance of 25 miles.

If the plan succeeds, the Denver News says, it will mean the opening up of new oil possibilities in the Rangely section, oil men say, and for this reason it is being watched with great interest.

Included in the Tide Water Associated equipment are a California steel derrick for a rotary rig, five boilers, complete shop tools, and extensive assortment of drill bits, casing and all other material needed for heavy field operations.

This organization makes three major operators on the Rangely structure battling to get down through the giant gas reservoir of the Frontier sand and test the deeper Dakota sands for oil.

The Midwest Refining Co. and The Texas Company are now opening up again for operations after the winter shutdown. The Midwest Refining well is in the southeast of southeast, 30-2n-102, and on March 3, 1925, it encountered the Frontier sand at 2,948 feet. When 6 feet in the sand this well blew in for 40,000,000 feet of gas daily, spraying a condensate that tested 44 degrees gravity. The pressure was 1,150 pounds to the square inch. The remainder of the year was devoted to killing this gas flow, and before the shutdown forced by winter the flow was mudded off. Part of the hole was lost and will have to be redrilled. Work is now waiting on a special tool that has been ordered.

The Texas Company's location is in southwest of southwest, 30 2n-102, three-quarters of a mile west of the Midwest well, and it reached the Frontier sand last November at 3,001 feet. The gas blew in with 50,000,000 feet daily, spraying oil similar to that at the Midwest. The sand was encountered unexpectedly, shallower than had been calculated, and the tools were blown from the hole, the control valve torn from the nipple and the derrick partially wrecked.

The Texas Company's well was brought under control after considerable effort and anchorage that was thought secure was placed upon it. But the pressure tore everything loose again, carrying 275 feet of the casing out of the well, along with the control valve, and scattering the equipment for hundreds of feet over the area. After getting it under control a second time the well was shut down for the winter.

The Tide Water Associated acreage will be tested with rotary tools at a location in the east half of 24-2n-103, 1½ miles northwest of The Texas Company and Midwest locations. It is hoped that with the equipment now being installed the gas sand may be mudded off and penetrated successfully.

On this acreage H. W. Gray drilled a well in 1923 on southwest of southwest, 19-2n-102, a mile north of the present Midwest and Texas locations and half a mile southeast of the proposed Tide Water Associated location, which made a good showing of shale oil at 2,010 feet. In 1924 this well was deepened 15 feet to 2,025 feet and the oil rose 1,275 feet in the casing. In 1925 the well was reopened for a production test under the supervision of the Bureau of Mines, and continued bailing failed to reduce the level of the shale oil. The production was estimated at 500 bbls. daily when the discovery was made.

The Rangely Field has been a producer of shallow oil for many years, although nothing beyond the needs for local consumption has ever been taken out, due to lack of transportation. Two small refineries have been in operation, and only the lighter hydrocarbons were saved, the heavier oil being wasted.

This oil now will be marketable with The Texas Company, Midwest and Tide Water Associated for fuel.

LOS ANGELES RATES HEARING POSTPONED

LOS ANGELES, Calif., May 8.—The State Railroad Commission hearing on the applications of the Los Angeles Gas & Electric Corp., the Southern California Gas Co. and the Midway Gas Co. for increases in rates, has been continued until an indefinite date. The prolongation of the hearing was due to the fact that engineers of the commission have made an investigation and will give their opinion on the proposed rate increase when the hearing is resumed.

The Los Angeles Gas & Electric Corp. continued to present testimony in rebuttal to the contention of City Attorney Stephens and Special Gas Engineer Berkley that only natural gas should be served here. John Redd, A. J. Hartfield and Phil Taylor, managers of gas appliance and distributing houses, declared this would be unsafe and impracticable, that changes would be necessary in gas burners and appliances.

The mixed gas served, it was stated, contains 850 B.t.u. to 1,100 B.t.u. to the natural gas. A discrepancy of 100 B.t.u. causes appliances to burn improperly, declared George Finney, secretary of the association of appliance dealers, who said he had made adjustments and tests in various parts of the state.

CLAY COUNTY GAS LINE MAY SERVE KNOXVILLE

BOWLING GREEN, Ky., May 10.—Current reports are that the Fordson Coal Co. plans to make exhaustive tests in Clay County to the north of Knox County, where the corporation owns in fee simple more than 200,000 acres. Core drills have been moved on the big tract, both for testing coal measures and for a hunt for both oil and gas possibilities. This vast acreage is contiguous to a prolific gas belt that has been developed in Clay County in the past few years. While oil discoveries are scattered, testing shows good possibilities in that direction. Talk continues of the piping of natural gas from Clay County, Kentucky, to Knoxville, Tenn., and other intermediate points to the south, northern capital having this proposition in mind.

At the present time the most important gas field that is being developed in the extreme eastern part is centered in the Beaver Creek district of Floyd County, where some very nice gas producers are being brought in and several new wells are being drilled and due for completion. Among the active gas developers in this region are the Ohio Fuel Oil Co., New Domain Oil & Gas Co., Louisville Gas & Electric Co. and the Eastern Carbon Black Co.

GAS FOR PANHANDLE, TEX.

PANHANDLE, Tex., May 8.—The gas mains from the Panhandle fields have reached here and the city mains to furnish gas in the business section will be laid immediately. It is said that gas will be available for use in the business section and for commercial purposes by May 15. It is expected gas will be available for use all over the city within 90 days.

DEVELOPMENT IN CENTRAL OHIO; ASHLAND COUNTY HAS BEST WELL

By Whit

TOLEDO, Ohio, May 10.—Every start of May can be depended upon to rush development work by the gas companies in the Central Ohio Field, and this season is no different than others before, as the work has started now in earnest and will be maintained until late in the fall. The supply was very good during the past winter and the gas companies are spending vast sums of money hunting new areas in hopes to maintain the supply at normal.

In the field proper and outlying districts for the week a total of 17 completions were reported, two being oil wells, with a reported flush of 80 bbls., 2 dry holes and 13 gas wells, which is an excellent record when it is known that some of these wells were drilled in what is considered wildcat territory. There were 21 new locations staked out and 17 new wells started operations.

The best gas completion for some time in the old field proper is credited to Ashland County, where thousands of wells have been drilled in the past. The new well runs up into a volume of eight figures and was drilled by the Ohio Fuel Gas Co. in a test 660 feet from the north and east corner of the J. F. Jones 75 acres, Section 29, Green Township. Same company made a location for a test 760 feet from the south line and the same distance from the west line of the Gottlieb Koch 160 acres, Section 34, same township. The Logan Gas Co. also made a location for a test 950 feet from the south line and 1,500 feet from the west line of the J. R. Walton 57 acres, Section 29. In Sullivan Township, same county, the Logan Gas Co. is drilling a test 620 feet from the south line and 350 feet from the west line of the Addison Stentz 50 acres, Lot 84, and the Klise-Eckstein-McCann Co. made a location for a second venture in the southwest corner of the J. A. Spencer 34 acres, Lot 80.

Ashland County

Three new locations for tests have been made in Hanover Township, Ashland County. The Logan Gas Co.'s No. 1 location 300 feet from the north line and 600 feet from the east line of the A. C. Hazette 85 acres, Section 26; the Ohio Fuel Gas Co.'s No. 1 well, 300 feet from the north line and 660 feet from the west line of the M. D. Leatherow 20 acres, Section 20, and the East Ohio Gas Co.'s venture, 400 feet from the south line and 600 feet from the west line of the J. H. Miller 100 acres, Section 27. In Orange Township, same county, the Logan Gas Co. set a stake for a test 660 feet from the south and east lines of the J. A. Albright 80 acres, Section 4, and for No. 3 well, 300 feet from the north line and 625 feet from the east line of the H. B. Wertman 127 acres, Section 3.

In Jefferson Township, Knox County, the East Ohio Gas Co. made a location for a second test 660 feet from the north and east lines of the C. Arwiller 80 acres, Section 7, and I. E. O'Hail staked a location for a second well 1,500 feet from the north line and 700 feet from the east line of the Bert Nyhart 166 acres, Section 4.

Hulse & Kundtz made a location for a test 345 feet from the north line and 2,415 feet from the east line of the Cora B. Pfeifer 100 acres, Lot 28, Litchfield Township, Medina County. In Fafayette Township, the Ohio Fuel Gas Co. is drilling a test in the northwest corner of the R. O. Wheeler 88 acres, Section 36, and made a location for a test 600 feet from the north line and 300 feet from the east line of the H. S. Koppes 20 acres, Lot 13. In Liverpool Township, the Logan Gas Co. staked out for a test 600 feet from the north line and 300 feet from the east line of the Nicholas Granson 81 acres, Section 3. In York Township, the Logan Gas Co. has a location for a test 600 feet from the north and east lines of the Frank Potlowany 87 acres, Section 2. A location for a real wildcat venture was made by the Empire Gas & Fuel Co. in the southeast corner of the A. Rockwood 30 acres, Lot 35, Grange Township, same county.

In Columbia Township, Lorain County, the Empire Gas & Fuel Co. is drilling a test in the northwest corner of the S. A. Ives 57 acres, Lot 43.

Wayne County

In Wayne Township, Wayne County, W. E. Hawk and others' test in the southwest corner of the J. B. Yoder 40 acres, Section 1, is a fairly good gasser. In Green Township, the Logan Gas Co. is drilling a test 600 feet from the north line and 500 feet from the west line of the A. J. Shisler 100 acres, Section 6, and in Milton Township, the East Ohio Gas Co. is drilling No. 1 well 400 feet from the north line and 1,450 feet from the east line of the C. W. Frick 80 acres, Section 21. Congress Township, of this county, is now getting some new and interesting development. Glen Harmon and others are drilling a second test 980 feet from the north line and 40 feet from the east line of the Clayton Good 44 acres, Section 36. Arco Oil Co. located a third test in the southwest corner of the C. Spreng 135 acres, Section 25. Warren Palmer and others are working at a second test 1,020 feet from the north line and 335 feet from the west line of the S. A. Swanson 86 acres, Section 36. Ohio Fuel Gas Co. made a location for a test 660 feet from the north line and 600 feet from the east line of the Stanley Smith 34 acres, Section 32, and the Logan Gas Co. set a stake for a second test 300 feet from the north line and 500 feet from the west line of the O. E. Frank 160 acres, Section 36.

The Arkansas Fuel Oil Co. hit a nice gas well at a second test on the W. H. Geib 134 acres, Lot 4, Monroe Township, Holmes County. Empire Gas & Fuel Co. staked a location for a test in the southwest corner of the Oscar Steel 115 acres, Lot 6. In Hardy Township, the same company's No. 1 in the southwest corner of the D. Netherow 162 acres, Section 10, is credited with 70 bbls. of oil from the Clinton sand. This company is drilling a second test 375 feet from the south line and 924 feet from the west line of the same farm, as well as a test drilling in the southeast corner of the Lewis Donald 24 acres, Section 12.

Athens County

In Carthage Township, Athens County, the Logan Gas Co. has started the drill at a test 1,050 feet from the north line and 550 feet from the east line of the E. Cole 20 acres, Section 3. Fairfield Gas Co. is drilling a test 375 feet from the north line and 1,690 feet from the

(Continued on Page 100)

CHILDRESS COUNTY LINE

CHILDRESS, Tex., May 8.—Work on the 12-inch gas line from the Wheeler County Field through Childress to Wichita Falls, at a cost of $5,000,000, counting a feeder line, will be started Monday, May 19. Twelve hundred men will be employed on the project, says C. R. Upham of the Upham Gas Co., builders of the line, which will supply industrial gas at 11 cents per 1,000 feet. The line will be laid into Childress first and then extended to Wichita Falls, with a second feeder line across Childress County, making a total length of 356 miles.

The Holmes-Manley *Cracking* Process

No re-running of the Naphtha is necessary with this process

The Licensee receives:—

1. *A Proven Process*
2. *Complete Technical Service*
3. *The Benefit of Future Developments*

Licenses Granted by

THE TEXAS COMPANY, U. S. A.

Apply to

R. C. HOLMES, *President*

17 Battery Place, New York, N. Y.

MEN KNOWN IN OILDOM

Eugene F. Connors

Eugene F. Connors, the new vice president of the Independent Oil & Gas Company of Tulsa, Okla. adds another name to the roll of Bradfordites in Tulsa's oildom. He has been identified with the petroleum industry for many years, and for the past 10 years in an executive capacity.

Upon completion of his education he was employed in the drug business, and in that experience he acquired a working knowledge of chemistry which was destined to be of value to him in later years.

He entered the employ of the McCourt Label & Cabinet Company at Bradford, a Barnsdall concern. During this employment he became a producer through investment in drilling wells. He operated as an individual in the fields of Pennsylvania and West Virginia.

Becoming interested in the manufacture of gasoline, he constructed a few plants which he operated for many years.

Upon the death of T. N. Barnsdall, he became associated with the Barnsdall organization in charge of new business and operations. He was later made general superintendent of the Pittsburgh Oil & Gas Company, and was subsequently elected vice president of that corporation, a post which he held for nine years prior to his joining the Independent's executive family.

PERSONAL PARAGRAPHS

L. M. Johnson has been appointed superintendent of the Producers & Refiners refinery at Parco, Wyo.

* * *

O. M. Pflug, export manager of the Tidewater Oil Company of New York, has been visiting Australia.

* * *

John Eoghan Kelly, consulting engineer, has removed his offices to 17 Battery Place, New York City.

* * *

Robert E. Connell, sales manager of the Staytite Company of Houston, Tex., is in the Mid-Continent Field.

* * *

Lee O. Koen of the W-K-M Company, Inc., has returned to Houston after two months' absence in California.

* * *

Harry Pennington is now located in San Antonio, Tex. He has a contract to drill several water wells in Dimmitt County.

* * *

F. V. Faulkner, vice president and general manager of the production department of the Magnolia Petroleum Company, Dallas, Tex., is looking over the petroleum situation in Colombia, Peru and other Central and South American countries.

C. R. Mazey of Shelby, Mont., has been appointed oil field inspector for that State by the Montana Railroad Commission.

* * *

A. B. Slimp, president of the Pioneer Oil & Refining Company of San Antonio, Tex., is on a business trip to Mexico City.

* * *

John Wilson, independent operator in the Kansas fields, has been visiting in Tulsa, and returned to his home in Independence, Kans.

* * *

W. J. Burke, assistant sales manager of the Wico Electric Company of Springfield, Mass., made a trip through the Mid-Continent Field.

* * *

L. K. Sherman, Oil City, Pa. representative of the McCord Radiator & Manufacturing Company of Detroit, Mich., is visiting in Tulsa, Okla.

* * *

J. P. Maher, Mid-Continent representative of the Chapman Valve Manufacturing Company, is at the company's plant at Indian Orchard, Mass.

* * *

A. D. Allison of Allison and Fitzwilliams of Wichita, Kans., sustained a wrenched back moving heavy objects at his home, but has recovered.

* * *

Frank Haskell of Tulsa, president of the Tidewater Oil Company and T. W. McCrary were registered at the St. Anthony Hotel in San Antonio, Tex.

* * *

W. S. (Bill) Hart, representing the Hazard Manufacturing Company of Wilkes-Barre, Pa., was in Wyoming calling on the oil trade early in the week.

* * *

E. W. Marland is expected to arrive in California within the next week or 10 days on a tour of inspection to include all of the Marland Oil Company's holdings.

* * *

R. C. Collins, who has done general land and scouting work for the Marland Oil Company of Ponca City, will henceforth make Wichita his headquarters.

* * *

S. V. Stewart, general manager of the Ajax Iron Works, passed through Tulsa on his way to his home in Corry, Pa., after two months spent on the Pacific Coast.

* * *

J. F. Hallett, scout for the Roxana Petroleum Corporation at Winfield, Kans., will henceforth make the Wichita offices his headquarters and will make his home there.

* * *

C. H. Callahan of the firm of Callahan and Ainsworth has returned to his office in the Sedgwick Building, Wichita, Kans., after a month's illness following an operation.

* * *

A. LaGarde, representing the purchasing department of The Texas Company, was a business visitor in Casper, Wyo., from his Denver headquarters. He made the trip both ways by motor.

* * *

Lonnie King, assistant geologist of the Prairie Oil & Gas Company, at Eastland, Tex., and Miss Marion Hall of that city were married recently, according to word received in Tulsa.

* * *

Waite Phillips has returned to Tulsa after a winter spent with his family at Washington, D. C. It is reported that Mr. Phillips, accompanied by his family, will spend the summer in Europe.

* * *

Mrs. Kathryn Van Leuven, formerly assistant attorney-general of the State, is now a member of the legal staff of the Magnolia Petroleum Company for Oklahoma, with headquarters at Oklahoma City.

* * *

John D. Beardsley, general auditor of the Illinois Pipe Line Company, was in Casper, Wyo., looking over the company's business there and then left for Shelby, Mont. Mr. Beardsley has since returned to Findlay, Ohio.

* * *

Frank E. Richardson has resigned as general superintendent of the Producers & Refiners Corporation at Parco, Wyo., and is in Tulsa, Okla. Boyd W. Morgan has resigned as process superintendent of the Parco plant, and has announced that he will become connected with a Tulsa, Okla. company.

W. W. Boyer of the leasing division of the U. S. Geological Survey has been transferred from the Washington offices of the Department of the Interior to Denver. He will have charge of the field geological work in the Rocky Mountain region.

* * *

Herbert E. Williams, geologist, with headquarters in Tulsa, who has been engaged in valuation work, has moved offices to the Tuloma Building, Tulsa, to be associated with W. H. Helmerich in general development and producing.

* * *

Theron Wasson, chief geologist of the Pure Oil Company, with headquarters at Columbus, Ohio, passed through Fort Worth last week on his way from Tulsa to the Gulf Coast of Louisiana, where some gas was reported in one of his company's test wells.

* * *

E. B. Reeser, president of the Barnsdall Corporation, arrived in Los Angeles a few days ago and is at the present time making a tour of the company's producing and potential acreage, in company with R. A. Broomfield, vice president in charge of California operations.

* * *

J. M. Giltner, formerly salesman for the Waite Phillips Company in Oklahoma and Arkansas, has been placed in charge of refinery sales for the State of Missouri, for the Barnsdall Corporation. Mr. Giltner is moving his residence to Kansas City, which point is to be his headquarters.

* * *

R. W. McIlvane, vice president of the Pure Oil Company, returned to Columbus, Ohio, last week after spending several days in Fort Worth in connection with his company's Texas operations. While in "cowtown" Mr. McIlvane purchased a fine polo pony by the name of "Buttermilk" from the Tucker Stables.

* * *

Oliver P. Whiting, field representative for the South Chester Tube Company, covers a lot of territory. Last week he made a trip from his home in Marietta, Ohio, to San Angelo and Best, Tex., then returned to Fort Worth where he was registered at the Texas Hotel, but immediately left again for Bonham, Tex.

* * *

Dee Thatcher, formerly supervisor of stations in St. Louis, Mo., for the Skelly Oil Company, has been appointed superintendent of the retail department of the Crystal Oil Refining Corporation at Shreveport, La. W. I. Williams, Jr., formerly with the Waite Phillips Company at Tulsa, has been named retail sales manager.

* * *

J. S. Freeman, assistant to vice president in charge of production for the Skelly Oil Company, has recently returned from a tour of inspection of the company's properties in southern Oklahoma, Texas and New Mexico. Mr. Freeman was accompanied on the trip by O. M. (Ted) Evans, general superintendent in charge of production for southern Oklahoma and Texas. After visiting the producing properties in the various districts comprising the southern division, a trip was made into Upton County, Texas, and from there to Lea County, New Mexico. A few days were spent in the Panhandle area where the Skelly Oil Company has extensive holdings.

* * *

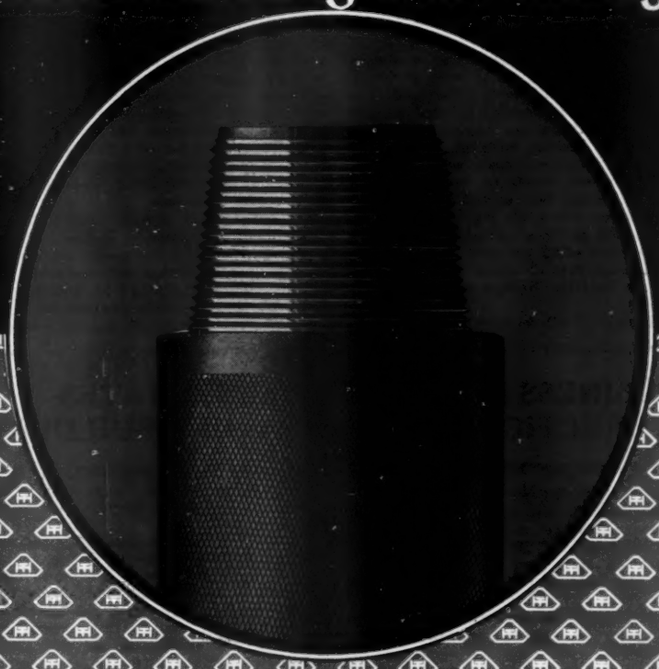
Seen in the lobby of the Texas Hotel, Fort Worth: R. J. Sheehan of the Sheehan Pipe Line Company of Tulsa, who has been busy in the north central Texas territory for the past four months; Ed Merry of the Merry Brothers & Perrini, Cisco, Tex., who was one of the winners in the golf tournament during the geological convention at Dallas in March; R. T. Lyons, district geologist in west Texas for the Skelly Oil Company, who was heading back to San Angelo after a trip to the home office in Tulsa; Guy Mosely, head of the White Eagle Oil & Refining Company's Fort Worth office, who had just returned from a disappointing trip to Coleman County; David Proctor, of the Gulf Oil Corporation's legal department, who has been transferred to the Fort Worth office from Houston in connection with the transfer of John G. Gregg, for the past three years head of the Gulf's Fort Worth legal department, to Pittsburgh as assistant to the general counsel. R. E. L. Batts, Jr., is the new senior member of the Gulf's legal department at Fort Worth.

The Majority Rules

Without fear of contradiction we say that there are more

HUGHES TOOL JOINTS

being used throughout the oil fields of the world than any other make joints.



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OKLAHOMA CITY, OKLA.

MAIN OFFICE AND PLANT
HOUSTON, TEXAS

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NEW YORK CITY, N.Y.

EQUIPMENT AND SUPPLIES

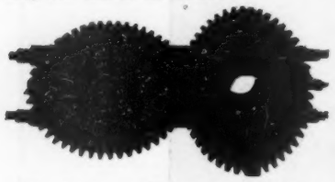
PUMPING ATTACHMENT PRODUCES LONG STROKE

The National Oval Gear Pumping Attachment, recently placed on the market by the National Supply Companies is designated and built to produce more oil at less cost.

The attachment replaces the standard rig crankshaft and produces a long slow pumping stroke which is necessary for handling large volumes of fluid from extreme depths with a minimum stress in the pumping equipment. The length of the stroke obtained is 74 inches.

The construction consists essentially of a planetary geared crank connecting the standard rig bandwheel shaft and pitman. One of a pair of gears is mounted on the bandwheel shaft, the other is bolted to the pitman. The two are connected by a frame carrying two journal bearings. Rotation of the crankshaft gear causes the pitman gear to "walk" around it at one-half crankshaft speed.

Each of these gears consists of two toothed flanges jointed by a hub, the whole being cast in one piece. The entire contour between the flanges is machined to provide a journal bearing and a raceway for the guide rollers. The oval shape of the gears should be especially noted. This gives a modified crank motion with a decrease in acceleration at the beginning and end of the stroke.



The frame maintains the gears in accurate alignment and at proper operating centers. The gears turn in two large journal bearings fitted with heavy bronze bearings which are both adjustable and replaceable. The guide rollers operate on the machined tracks between the gears and assist in maintaining alignment. They turn on roller bearings carried on a hollow shaft which is, in turn, supported in the frame.

The addition of this attachment alters only the standard rig crank. The bandwheel shaft is run at standard speed. No countershaft, chain or heavier belt is needed. The standard line-up of bullwheels, calfwheel, sand reel or hoist may be used.

By removing the pitman gear and frame and attaching a standard A.P.I. wrist pin, cleaning out tools may be operated at standard crank speeds.

The Oval Gear is designed and equipped with a 6-inch shaft, but is obtainable with 5-inch shaft on special order.

Booklet No. 426 describing the National Oval Gear Pumping Attachment in detail may be obtained at any National store or by writing direct to the general office, Toledo, Ohio.

PIPE LINE ORDERS

The Iron Trade Review reports that "scheduled for early letting is a 20,000-ton order for an 8-inch pipe line for the Roxana Petroleum Corp. Texhoma Pipe Line Co. is considering building a pipe line from its Wichita Falls, Tex., district refinery to a production territory in Montague County, Texas. The Marland Refining Co. is expected to install a line in its new field in Texas which at present is not thus served. Another large tonnage will be involved in a line contemplated for the Panhandle section of Texas. Several gas lines are contemplated as well, including the 450-mile line of 16-inch which will take 77,500 tons, between Texas and Colorado."

PIPE MILL PRODUCTS IN DEMAND; PRICES ARE ABSOLUTELY MAINTAINED

By B. E. V. Luty

PITTSBURGH, Pa., May 10.—Activity in the steel market as a whole has decreased somewhat farther, but there has been no decrease in demand for pipe mill products, whereby they are the one really bright spot in the market.

While there has been a large decrease in steel demand, such demand as is left is really of quite fair proportions, the present market suffering from comparison with a period of unprecedented activity. Production and shipments of steel in the past six months were about 6 per cent above the highest record ever made for six consecutive months, that having been in the first six months of 1923.

The steel trade is quite used to ups and downs, but the course of things is somewhat different on this recession from what has been seen in each of the past three years, when after a bulge in buying and shipments there were sharp recessions, the sharpest having been that of 1924. In those cases buyers of steel accumulated some stocks and turned in to liquidate them. This time there is no accumulation to be worked off, and as consumption proceeds apace, although probably slightly decreased in nearly every direction, the market activity tapers off gradually.

Taking the steel market as a whole, buying is probably at a rate of 60 or 65 per cent of capacity. The mills are still working under some of the impetus of the recent heavier buying, and they have some backlog business, such as in rails and structural steel, so that operations are not down to the percentage rate of buying just mentioned. Mill operations on the whole last week were at around 80 per cent of capacity, against a peak rate of 92 per cent in March and an average rate of about 88 per cent in the six months, November to April, inclusive.

Buying of oil country tubular goods keeps up at a very good rate. There has been no particular change in the past couple of months, trade having picked up during the first two months of the year from a very dull condition.

Some line pipe orders are being placed right along, chiefly in relatively small lots. The mills have had heavy shipments of line pipe and probably do not have as much line pipe on books now as they had a month or two ago, but still they have a very fair tonnage ahead.

Demand for merchant pipe has increased a trifle more and is now of moderately full average proportions. The late spring seems to have delayed buying to a considerable extent. Demand in western Pennsylvania has been quite below normal for months, on account of the very light operations of coal mines in the Pittsburgh district, where the union scale is altogether too high for competition with nonunion fields. There is a trend towards nonunion operation in the district, at wages about 30 per cent below the union scale, but this is proceeding slowly.

Steel Prices

Prices of some finished steel products are naturally under considerable pressure at this time, for during the period of very heavy demand they were unable to advance materially, and now the support of such heavy buying is lacking. The open market on bars, shapes and plates is not quotably lower, but there is considerable ground for suspicion that much of the business being booked is going at prices, say $2 a ton below those ruling a month and more ago.

In the case of sheets, there is some definite further recession, beyond that recently noted. Black and galvanized sheets now frequently, though not commonly, go at an additional $2 a ton concession, whereby they are now quotable at 3.15 to 3.35 cents for black and at 4.40 to 4.60 cents for galvanized. The full asking prices are regarded still as part of the quotable market, although there are hardly any scales at them. Blue annealed sheets remain quotable at 2.40 to 2.50 cents, since the recent softening, and automobile sheets at 4.30 to 4.40 cents.

In pipe mill products prices are believed to be absolutely maintained, on the basis of cards issued more than three years ago.

Pig iron, scrap and Connellsville coke all continue very dull, with no change in quotable prices.

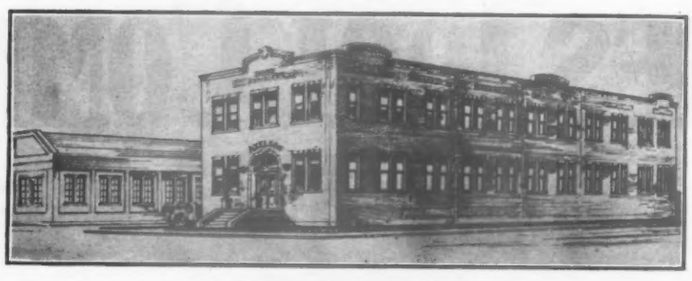
BUSINESS EXPANSION NECESSITATES ERECTION OF MUCH LARGER BUILDING

The entire Los Angeles office building of the Axelson Machine Co. has been demolished to make way for a new office structure that will embody four times as much space. During the past week workmen have been busy tearing down the old building which was constructed ten years ago and a magnificient edifice to embody 12,000 feet will be erected in its place and should be completed by August 1.

In the meanwhile the office force will be housed in special buildings erected in different parts of the plant yard so that administrative duties will go along unhindered. Later these buildings will be used for factory expansion.

The new structure will be two stories in height and will embody 16 private offices on the second floor, while the first floor will be devoted to general bookkeeping department, reception room and assembly hall.

When the original building was constructed approximately ten years ago it was believed to be large enough to take care of the business for many years but with constant expansion of the factory it became evident two or three years ago that the old building would not prove adequate, consequently the engineering department began to formulate plans for a special office building adapted to the needs of the company and of a size, that is believed will be large enough to serve the company for many years. The latest type of office conveniences are to be installed and the partitions will be satin-rubbed gum.



New building of Axelson Machine Co.

INSTALLATION METHOD INSURES TIGHT TUBES

The Ross Heater & Manufacturing Co., Inc., of Buffalo, N. Y., manufacturers of heat exchangers, condensers and other similar type equipment for refineries and natural gasoline plants, has a unique method of installing tubes so that they remain tight regardless of operating conditions.

The tube holes are first drilled using a template which insures accurate spacing of the tubes. These holes are then reamed to a diameter slightly larger than the outside diameter of the tubes. This insures the holes in the tube-sheets being true to roundness and size. After the tubes are placed in position they are then expanded with a special roller tube expander. The operating of this expander is such that the rolls are always parallel to the inside of the tube resulting in the tube being subjected to the same pressure throughout the entire expanded area. The depth of expansion is approximately three-quarters of an inch, which distance is always less than the thickness of the tube sheet so the tube can be easily removed in case replacement is necessary. This method of expanding insures a tight and rigid joint between the tube and tube sheet, and one which will not leak and which is as strong as the tube itself.

All the Ross equipment is designed so that it can easily be dismantled or replacements made without the removal of all the equipment. In addition to several types of exchangers and condensers for all uses, the company's list of equipment includes expansion joints and high-pressure oil heaters.

PYROMETER CONTROLLER

A new Bristol's Pyrometer Controller, Model 479, has been developed which is the result of four years experimental work and also trial under actual operating conditions in the field. It not only includes the recent improvements found in other types of Bristol's equipment, but also incorporates many additional and exclusive features.

An extra wide scale, 7 inches in actual measurement, is an important feature of this new controller. In fact, it is the same scale as furnished with Bristol's indicating pyrometer, Model 420, and which is said to be the widest and most easily read scale of any pyrometer so far placed on the market.

The real test of any equipment is in performance under actual operating conditions. And several of the final models have been in use for months with no trouble.

The instrument will also stand shipment, as has been proven by the shipment of 12 to Denver, where all are now reported to be operating satisfactorily.

TOURS CALIFORNIA

For the purpose of more closely studying field operating conditions, J. O. Clutter, sales manager for the D&B Pump & Supply Co., Los Angeles, Calif., has completed a tour of the northern California fields. Mr. Clutter spent several days in Taft, Bakersfield, and Coalinga.

BE SENSIBLE

Install a DU-MORE Portable

Gasoline Plant on Your Lease

It will increase your profits.
Handles from 200,000 to 7,000,000 cubic feet of gas daily.
Lease man can operate plant.
Small operation cost.
Plant is 100% efficient.
100% portable.
100% salvage.

LESS COST—MORE PROFIT

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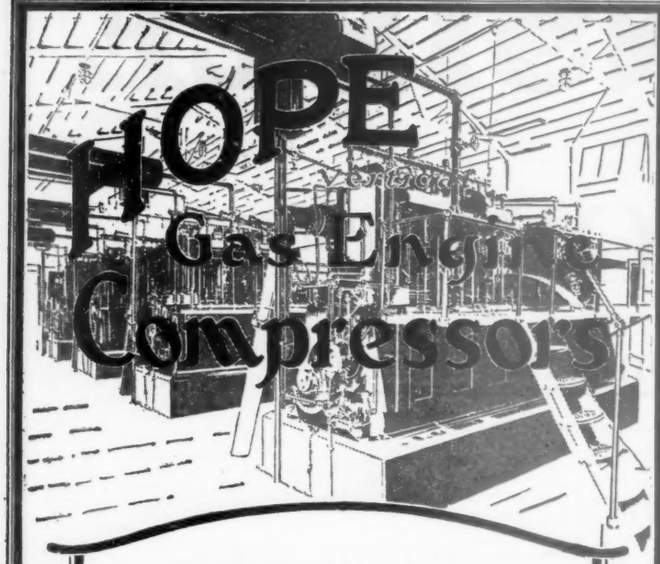
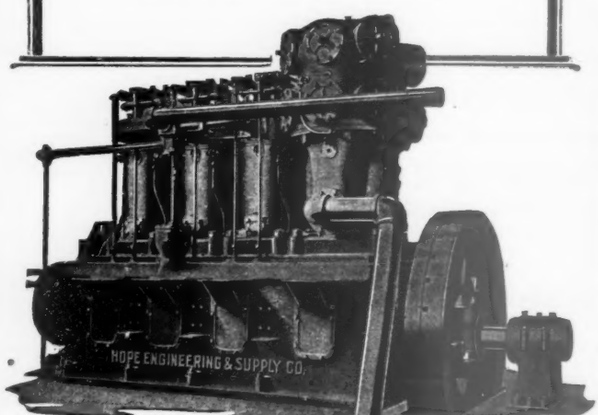
PRODUCTS CORPORATION

1215 Detwiler Building
Los Angeles, ... California



Even if the Hope Vertical were no better, mechanically, than other compressors, it still would be the least expensive unit you could buy because of its extreme compactness and the resulting lower cost of building, land, plant accessories and installation. But, in addition, it will give you a year-after-year operating economy—including upkeep, depreciation and interest—probably lower than any other type affords, and certainly no higher. The Hope Vertical gives you the biggest return per dollar of investment.

Let us send the specifications.



HE-16

ENGINEERS CONTRACTORS

HOPE Engineering & Supply COMPANY

DESIGNERS MANUFACTURERS

MT. VERNON, OHIO, U. S. A.

PETROLEUM STATISTICS FOR MARCH, 1926

Compiled by G. R. Hopkins, Petroleum Economist

CRUDE PETROLEUM—The production of crude petroleum in the United States for March, 1926, as compiled from pipe line reports to the Bureau of Mines, Department of Commerce, amounted to 60,492,000 bbls., a daily average of 1,951,000 bbls. This represents an increase over February production of 2,500 bbls. per day, made up roughly of a 10,000-bbl. increase in light oil and a 7,500-bbl. decrease in heavy oil production. All the major producing areas of the country, except California and the Texas Gulf Coast, showed some increase in daily average production. Perhaps the greatest outstanding event of the month was the rise in importance of the Urania Field in northern Louisiana. Considerable development has been going on in this field for some time, but March was the first month in which any material amount of crude left the producing properties, there being over 180,000 bbls. shipped out during the month. Production in Montana set a record figure and more than compensated for the drop in the Salt Creek Field. The production in Arkansas continued to decline, although the decreased rate would indicate that the Smackover Field was becoming settled.

Total stocks east of California again declined, though the decrease (which amounted to 265,000 bbls.) was considerably under that of any month back to May, 1925. Refinery stocks were increased roughly 1,200,000 bbls., which made the decrease in pipe line and tank farm stocks approximate 1,500,000 bbls. As has been the case each month for a year and a half, stocks of heavy crude and fuel oil in California reached a new high level. Refinable crude in this state, however, decreased.

Increased cooperation on the part of the refiners has made it possible to make a complete separation as between light and heavy crude east of California. These figures for March are—light crude, 227,928,000 bbls., or 79 per cent; heavy crude, 59,782,000 bbls., or 21 per cent. Shipments of crude through the Panama Canal fell off, but refined oil cargoes increased almost 1,000,000 bbls.

REFINED PRODUCTS—Runs to stills of crude petroleum during the month of March amounted to 62,493,000 bbls., of which 3,868,000 bbls. was foreign crude petroleum. This represents an increase in daily average of crude runs of a little over 5,000 bbls.

Gasoline production for the month totaled 969,543,000 gallons (23,084,000 bbls.), a daily average of 31,276,000 gallons (745,000 bbls.), or an increase of 436,000 gallons per day or 1.4 per cent over the February rate. Domestic consumption amounted to 779,571,000 gallons (18,561,000 bbls.), a daily average of 25,147,000 gallons (599,000 bbls), or an increase of 8 per cent over the previous month and of 25 per cent over March, 1925. Stocks, however, continued to rise, the total for the month—1,936,336,000 gallons (46,103,000 bbls.), being an increase over February of 78,000,000 gallons. On the usual basis these stocks represent 73 days' supply, which compares with 75 days' supply on hand the previous month and 81 days' supply on hand March 31, 1925.

Stocks of kerosene were added to as production of this commodity increased. Stocks of lubricants fell off as domestic demand rose sharply. Stocks of gas and fuel oils were again drawn on extensively as cracking activity increased.

The refinery figures of this report were compiled from schedules of 323 refineries which operated during March at 78 per cent of their recorded daily crude oil capacity of 2,577,000 bbls.

PRODUCTION OF CRUDE PETROLEUM, BY FIELDS AND STATES, WITH CLASSIFICATION BY GRAVITY

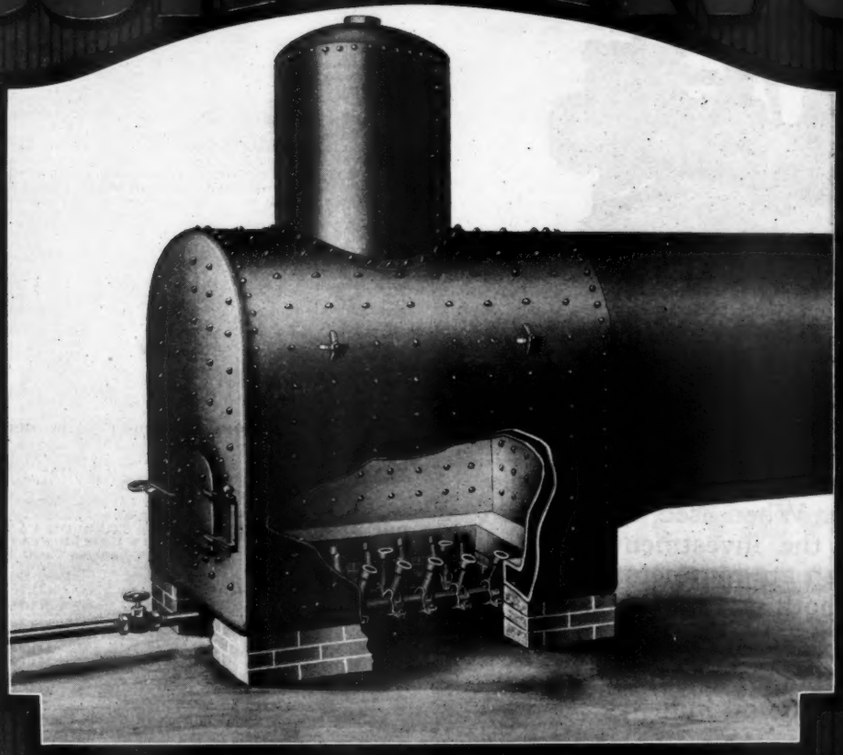
(Barrels of 42 U. S. gallons.)

Field—	February, 1926 Total	February, 1926 Daily Av	March, 1926 Total	March, 1926 Daily Av.	Jan.-Mar., 1926	Jan.-Mar., 1925
Appalachian	2,118,000	75,643	2,369,000	76,420	6,655,000	6,587,000
Lima-Indiana	158,000	5,643	179,000	5,774	494,000	514,000
Illinois-S. W. Indiana	655,000	23,393	779,000	25,129	1,123,000	1,152,000
Mid-Continent	28,960,000	1,034,286	32,305,000	1,042,104	93,064,000	95,941,000
Gulf Coast	2,592,000	92,572	2,663,000	85,903	7,989,000	6,515,000
Rocky Mountain	2,917,000	104,178	3,371,000	108,742	9,341,000	8,049,000
California	17,164,000	612,999	18,826,000	607,283	55,060,000	54,239,000
Total U. S.	54,564,000	1,948,714	60,492,000	1,951,355	174,726,000	173,997,000
State—						
Arkansas	4,825,000	172,321	5,087,000	164,097	15,347,000	9,447,000
California	17,164,000	612,999	18,826,000	607,283	55,060,000	54,239,000
Coloradо	189,000	6,750	193,000	6,226	567,000	191,000
Illinois	600,000	21,429	730,000	23,548	1,966,000	1,993,000
Indiana	66,000	2,357	60,000	1,936	189,000	207,000
Southwestern	55,000	1,964	49,000	1,581	157,000	159,000
Northeastern	11,000	393	11,000	355	32,000	48,000
Kansas	2,929,000	104,607	3,250,000	104,839	9,384,000	7,785,000
Kentucky	485,800	17,350	530,700	17,119	1,516,500	1,715,500
Louisiana	1,517,000	54,179	1,859,000	59,968	5,035,000	4,823,000
Gulf Coast	290,000	10,357	348,000	11,226	949,000	619,000
Rest of State	1,227,000	43,822	1,511,000	48,742	4,086,000	4,204,000
Montana	464,000	16,571	762,000	24,580	1,600,000	695,000
New Mexico	113,000	4,036	127,000	4,097	371,000	53,000
New York	143,000	5,107	158,000	5,097	448,000	373,000
Ohio	555,000	19,821	642,000	20,709	1,757,000	1,695,000
Central and Eastern	408,000	14,571	474,000	15,290	1,296,000	1,229,000
Northwestern	147,000	5,250	168,000	5,419	462,000	466,000
Oklahoma	12,791,000	456,822	14,406,000	464,716	41,030,000	43,671,000
Osage County	1,893,000	67,607	2,068,000	66,709	5,980,000	7,259,000
Rest of State	10,898,000	389,216	12,338,000	398,007	35,050,000	36,412,000
Pennsylvania	634,000	22,643	704,000	22,710	1,992,000	1,856,000
Tennessee	4,200	150	3,300	107	10,500	1,500
Texas	4,490,000	338,929	10,366,000	334,387	30,257,000	36,730,000
Gulf Coast	2,302,000	82,215	2,315,000	74,677	7,040,000	5,896,000
Rest of State	7,188,000	256,714	8,051,000	259,710	23,217,000	30,834,000
West Virginia	443,000	15,822	499,000	16,097	1,393,000	1,412,000
Wyoming	2,151,000	76,821	2,289,000	73,839	6,813,000	7,110,000
Salt Creek	1,596,000	57,000	1,653,000	53,323	5,009,000	5,372,000
Rest of State	555,000	19,821	636,000	20,516	1,804,000	1,738,000
Classification by gravity (approx.)—						
Light crude	39,560,000	1,412,857	44,085,000	1,422,097	126,770,000	134,833,000
Heavy crude	15,004,000	535,857	16,407,000	529,258	47,956,000	39,164,000

STOCKS OF CRUDE PETROLEUM HELD IN THE UNITED STATES (BARRELS)

AT REFINERIES (and in coastwise transit thereto): Reported by location of storage.		Feb. 28, 1926*	Mar. 31, 1926	Mar. 31, 1925
East Coast:				
Domestic		6,397,000	6,602,000	8,081,000
Foreign		2,384,000	3,046,000	2,665,000
Appalachian		1,579,000	1,616,000	1,190,000
Indiana, Illinois, etc.		1,482,000	1,571,000	1,479,000
Oklahoma, Kansas, etc.		3,607,000	3,558,000	4,939,000
Texas:				
Inland		1,114,000	740,000	1,133,000
Gulf Coast:				
Domestic		6,176,000	5,975,000	4,374,000
Foreign		144,000	266,000	519,000
Arkansas and Inland Louisiana		546,000	690,000	413,000
Louisiana, Gulf Coast:				
Domestic		3,953,000	4,217,000	4,813,000
Foreign		1,531,000	1,871,000	1,936,000
Rocky Mountain		1,521,000	1,498,000	1,078,000
Total east of California		30,434,000	31,650,000	32,613,000
ELSEWHERE THAN AT REFINERIES:				
Domestic—Reported by field of origin:				
Appalachian:				
New York, West Virginia, Eastern and Central Ohio:	Gross	7,055,000	6,952,000	7,254,000
	Net	6,755,000	6,653,000	7,038,000
Kentucky:	Gross	1,897,000	1,908,000	2,358,000
	Net	1,790,000	1,802,000	2,243,000
Lima-Indiana:	Gross	1,107,000	1,084,000	1,364,000
	Net	905,000	882,000	1,151,000
Illinois-S. W. Indiana:	Gross	11,480,000	11,947,000	11,424,000
	Net	11,001,000	11,468,000	10,936,000
Mid-Continent:				
Oklahoma; Kansas; Central, North and West Texas:	Gross	158,782,000	157,081,000	184,513,000
	Net	146,475,000	144,638,000	172,937,000
Northern Louisiana and Arkansas:	Gross	45,486,000	45,303,000	34,812,000
	Net	43,163,000	43,079,000	32,767,000
Gulf Coast:	Gross	17,906,000	17,636,000	19,909,000
	Net	17,606,000	17,261,000	19,517,000

CONSERVO



Low pressure gas burners

"25% more heat, with 20% less gas"—is a typical report from the oil producer, on Conservo Burners. This burner utilizes the famous Bunsen principle, so proportioning the air and gas mixture as to consume ALL the gas and utilize ALL its heat. Even distribution of the fire is secured over the entire heating surface, but with NO fire on the mud ring. Widely used by leading operators.

"If CONTINENTAL Sells It There Is No Better"

THE CONTINENTAL SUPPLY COMPANY
General Offices: St. Louis
Export Office: 2 Rector St., New York
London Office: 316-317 Dashwood House, Old Broad Street, London, E. C. 2, England

CONTINENTAL

True Economy

on low pressure work

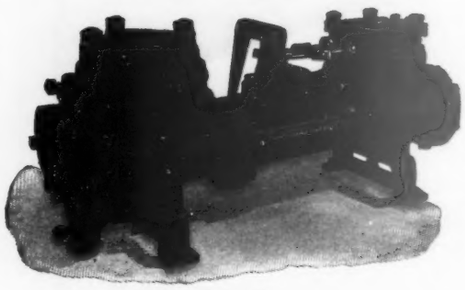


Fig. 628

5¼x4¾x5" TRANSIT Low Service Type Pump for 75 lbs. working pressure.

HIGH pressure pumps are also relatively high in price. When used on low pressure work, both the investment and the steam consumption are unnecessarily high. So money is lost both ways.

Our Low Service Type of pump has many uses in a refinery, around a lease, or most any place in the oil industry.

In any service where the working pressure stays around 75 lbs. or lower, true economy is found in this type. Relatively large fluid pistons and cylinders deliver large volumes of liquids with low steam consumption.

A good way to do is to have one of our district office men check over your installation. It is quite possible he can help lower your pumping costs.

NATIONAL TRANSIT
PUMP & MACHINE CO.
OIL CITY, PA.

New York Philadelphia Pittsburgh
Cleveland Denver Houston Tulsa

Rocky Mountain:	Gross	29,456,000	29,909,000	28,996,000
	Net	29,414,000	29,863,000	28,957,000
Total pipe line and tank farm stocks east of California:	Gross	273,168,000	271,819,000	290,630,000
	Net	257,009,000	255,646,000	275,536,000
Foreign crude petroleum on Atlantic Coast		124,000	102,000	220,000
Foreign crude petroleum on Gulf Coast		406,000	312,000	179,000
Total refinery, pipe line and tank farm stocks of domestic and foreign crude petroleum east of California		287,975,000‡	287,710,000	308,548,000
CLASSIFICATION BY GRAVITY (approx.):				
East of California:				
Light crude (24 degrees and above)		229,984,000	227,928,000	.....
Heavy crude (below 24 degrees):				
Domestic		57,459,000	59,368,000	.....
Foreign		532,000	414,000	399,000
CALIFORNIA:				
Light		44,877,000	43,996,000	†43,422,000
Heavy (including fuel)		86,761,000‡	87,682,000	†60,293,000

*Revised. †Final figures. ‡This figure for December 31, 1925, 84,983,000; for January 31, 1926, 86,626,000. §This figure for December 31, 1925, 294,331,000.

IMPORTS AND EXPORTS OF CRUDE PETROLEUM (BARRELS)
(From Bureau of Foreign & Domestic Commerce)

	February, 1926		March, 1926		Jan.-Mar., 1926	Jan.-Mar., 1925
	Total	Daily Av	Total	Daily Av.		
Imports:	3,689,000	131,750	7,216,000	232,774	15,593,000	18,380,000
From Mexico	2,829,000	101,036	5,252,000	169,419	11,577,000	17,405,000
From other countries	860,000	30,714	1,964,000	63,355	4,016,000	1,575,000
Exports:	1,049,000	37,464	966,000	31,161	3,198,000	3,328,000
Domestic crude oil:						
To Canada	780,000	27,857	822,000	26,516	2,660,000	1,965,000
To other countries	269,000	9,607	143,000	4,613	537,000	1,318,000
Foreign crude oil	.....	.....	1,000	32	1,000	45,000

INDICATED DELIVERIES OF CRUDE PETROLEUM, EXCLUSIVE OF CALIFORNIA GRADES, TO DOMESTIC CONSUMERS (BARRELS)
(Production plus imports minus exports plus stocks, exclusive of consumers' stocks, at beginning of month minus stocks at end of month.)

Domestic petroleum by fields of origin:	February, 1926*		March, 1926		Jan.-Mar., 1926	Jan.-Mar., 1925
	Total	Daily Av	Total	Daily Av.		
Appalachian	2,105,000	75,179	2,459,000	79,322	6,692,000	6,592,000
Lima-Indiana	190,000	6,786	202,000	6,516	583,000	594,000
Illinois and S. W. Ind.	261,000	9,321	312,000	10,065	1,237,000	2,086,000
Mid-Continent	31,889,000	1,138,893	34,226,000	1,104,065	101,783,000	100,805,000
Gulf Coast	3,527,000	125,964	2,908,000	93,806	9,991,000	7,198,000
Rocky Mountain	2,600,000	92,857	2,922,000	94,258	8,458,000	7,764,000
Deliveries and exports	40,572,000	1,449,000	43,029,000	1,388,032	128,744,000	125,029,000
Deliveries	39,791,000	1,421,107	42,364,000	1,366,581	126,340,000	122,524,000
Foreign petroleum	3,595,000	128,393	7,333,000	236,548	15,585,000	19,270,000
Deliveries of domestic and foreign petroleum	43,386,000	1,549,500	49,697,000	1,603,129	141,925,000	141,794,000

*Revised.

NUMBER OF PRODUCING OIL WELLS COMPLETED*

February, 1926	1,130
March, 1926	1,304
January-March, 1926	3,598
January-March, 1925	2,962

*For states east of California, from The Oil and Gas Journal; for California, from the American Petroleum Institute.

SHIPMENTS OF CALIFORNIA OIL THROUGH PANAMA CANAL TO EASTERN PORTS IN UNITED STATES
(From Panama Canal Record)

	Feb., 1926	Mar., 1926	Jan.-Mar., 1926	Jan.-Mar., 1925
Crude oil: Long tons (2,240 lbs.)	211,000	151,000	423,000	624,000
Barrels (approx.)	1,516,000	1,087,000	3,436,000	4,499,000
Refined products: Barrels (approx.)	846,000	1,814,000	4,345,000	2,842,000
Fuel oil	141,000	726,000	1,193,000	64,000
Gas	304,000	338,000	872,000	88,000
Gasoline	333,000	750,000	1,980,000	1,725,000
Lubricants	68,000	.....	138,000	133,000
Tops	.....	.....	162,000	632,000

Definition of Crude Petroleum Production

The figures given in the monthly statistical reports of the Bureau of Mines for the states east of California, compiled from reports of companies that operate gathering or lead lines, are preliminary and show the quantity of petroleum transported from producing properties, which ordinarily amounts to 99 per cent of the total production. Petroleum consumed on the leases and produced but not transported from the producing properties is not included in the preliminary figures. These items are given in the final annual statistics, which show all the oil brought to the surface. Current figures for California are those reported by the Pacific Coast office of the American Petroleum Institute. Final figures for California are compiled by the California State Mining Bureau.

CLASSIFICATION OF PRODUCTION BY GRAVITY

	Light Crude	Heavy Crude
*East of California	24° A.P.I. (0.910) and lighter	Heavier than 24° A.P.I.
†California	20° A.P.I. (0.934) and lighter	Heavier than 20° A.P.I.

Classification of Stocks of Crude Petroleum

1. Stocks at refineries east of California: Domestic and foreign crude petroleum held by the refining companies in tanks on, or adjacent to, refinery grounds and in tankers. Note—Since December 31, 1925, these stocks have included all the domestic crude oil in transit by water to the refineries east of California, a portion of which has been reported and included for some time. Due to this change, the revised figures for crude oil stocks are as follows:

	At Refineries	Total East of California
December 31, 1925	29,200,000	294,331,000
January 31, 1926	30,781,000	291,400,000
February 28, 1926	30,434,000	287,975,000

2. Stocks elsewhere than at refineries east of California:

*Pipe line and tank farm stocks of domestic petroleum: Petroleum that has been transported from the producing properties but not delivered at refineries or other points of consumption. For the states east of California such stocks are reported monthly to the Bureau of Mines as gross stocks, including the total contents of tanks and pipe lines, and as net stocks, which are gross stocks minus sediment and water.

†Foreign crude petroleum: Foreign crude held by importers elsewhere than at refineries.

3. California stocks: Total stocks of crude petroleum and fuel oil held in the United States by California companies divided as follows:

*Heavy—heavier than 20 degrees A.P.I., including all grades of fuel oil.

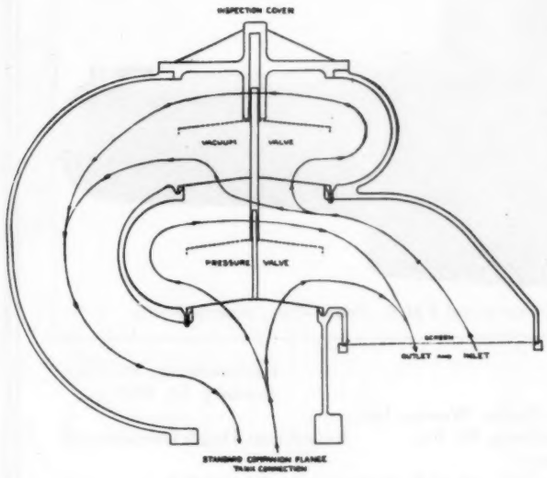
†Light—refinable crude, 20 degrees A.P.I. and lighter.

4. Producers' stocks: Petroleum held on the producing properties (stocks at the wells). Producers' stocks have been reported annually, as of December 31, and are included in the final statistics. Since 1919 producers' stocks east of California have ranged between 3,500,000 and 10,000,000 bbls.

COMPARABLE ANALYSES OF MAJOR REFINED PRODUCTS, MARCH, 1926, AND PRECEDING MONTHS

	Production	Imports*	Exports*	Stocks End of period	Domestic Demand
Gasoline (gals.):					
January	948,904,000	16,118,000	143,969,000	1,749,023,000	720,358,000
February	863,525,000	17,133,000	120,304,000	1,858,659,000	650,718,000
March	969,543,000	21,761,000	133,996,000	1,936,336,000	779,571,000
Motor fuel (gals.):					
January	988,600,000	.....	.....	.....	.....
February	903,000,000	.....	.....	.....	.....
March	1,007,900,000	.....	.....	.....	.....
Kerosene (gals.):					
January	214,761,000	15,000	78,793,000	287,618,000	147,555,000
February	197,992,000	34,000	66,253,000	287,994,000	131,397,000

BECO



The improved Beco Tank Vent Valve has 3 times the capacity of any other valve

A strong claim to make, but proved by actual tests. Not only does it *excel* in capacity but it likewise leads in *efficiency* and *accuracy*—by a very wide margin. Its performance makes it the essential tank equipment when you *demand* the most approved device.

Body made of cast aluminum. Valve discs are spun aluminum. Even the guide stems are aluminum. Discs seat in groove filled with mercury, guaranteeing positive gas-tight seal. Operate at 1-10 ounce pressure or vacuum automatically. Adjustable to operate at 1-20 ounce or up to 6 ounces. Impossible to ever freeze, stick or corrode. The closest approach to the ultimate of 100% efficiency. Made in every desired size. Investigate this remarkable new and better Vent Valve.

Other Beco Improved Equipment Includes:

- Automatic Tank Gauges
- Regulator Valves
- Manhole Covers
- Safety Tank Winches
- Cable Sheave Brackets
- Swing Joints
- Steel Tank Nozzles
- Gauge Hole Cover
- Special Equipment Designed to Order.

Brooks Engineering Engineers Manufacturers Distributors **Corporation**

314 East Twelfth St. Los Angeles, Calif.

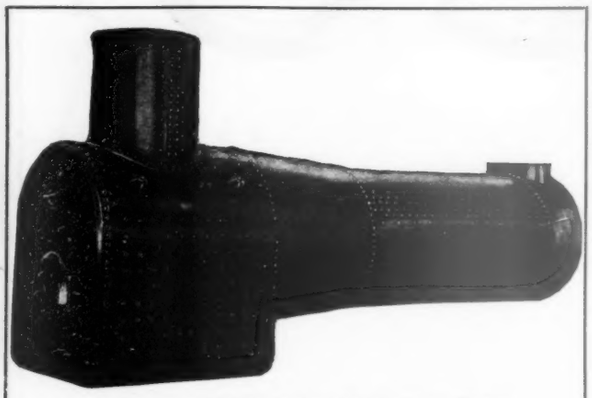
Tulsa, Oklahoma: 805 Mayo Bldg.

BECO EQUIPMENT LEADS WHILE OTHERS FOLLOW

DONOVAN BOILERS ARE CONSISTENTLY GOOD

CHOSEN FOR THEIR WONDERFUL SERVICE

BY MEN WHO KNOW



Donovan—A.S.M.E. Code—Oil Country Boiler

Parkersburg, W. Va.
January 12, 1926

Donovan Boiler Works, Inc.,
Parkersburg, W. Va. **Attention: Hugh Donovan, Jr.**

Gentlemen:

I bought a 30 H.P. DONOVAN BOILER from you in 1909 and put it into use the same year. I used this boiler from 1909 to the end of 1924 almost continuously and for drilling purposes.

This boiler was first used in Jackson County, then I moved it to Roane County. From there I used it in Jarold's Valley, Little Coa River, and then back to Roane County again. The boiler was at work practically all the time and was fired with all kinds of fuel: coal, oil, gas and wood. During all this time the boiler gave perfect satisfaction, proved an easy steamer, and very economical on fuel of any kind.

From West Virginia, I shipped the boiler to Sallisaw, Okla., in 1923. The boiler was put into service there at once and used continuously until the end of 1924, when it was shut down due to slackening up of operations generally. The boiler is still in good condition and would still be in use if there existed any work for it. I plan to use it again as soon as drilling operations pick up.

During these 16 years of use, the only repairs necessary consisted of putting in about 3 flues. I can say that this boiler has given me wonderful service and I can recommend DONOVAN BOILERS to anyone.

Yours very truly,
(Signed) S. R. NUHFER, Contractor.

Manufactured by
DONOVAN BOILER WORKS, INC.
Parkersburg, W. Va.
NEW YORK OFFICE
30 Church Street

FRICK-REID SUPPLY COMPANY
Mid-Continent Distributors

GREAT NORTHERN TOOL AND SUPPLY CO.
MIDLAND IRON WORKS
Montana Distributors

ALL LEADING SUPPLY HOUSES THROUGHOUT THE EASTERN FIELDS HANDLE

Donovan Quality Products
Always Reliable

March	230,378,000	50,000	74,950,000	293,907,000	149,565,000
Lubricants (gals.):					
January	111,255,000	90,000	30,541,000	316,839,000	69,168,000
February	101,893,000	56,000	33,128,000	332,176,000	53,484,000
March	110,182,000	166,000	31,075,000	320,883,000	90,565,000
Wax (lbs.):					
January	52,630,000	631,000	29,051,000	122,773,000	17,828,000
February	49,922,000	668,000	28,709,000	123,964,000	20,690,000
March	55,329,000	456,000	25,005,000	130,341,000	24,403,000
Gas and fuel oils (gals.):					
January	1,231,400,000	36,242,000	151,696,000	†977,178,000	.....
February	1,136,823,000	66,573,000	133,997,000	†900,670,000	.....
March	1,244,967,000	39,786,000	98,312,000	†851,234,000	.....
March, 1925, for comparison:					
Gasoline (gals.)	862,574,000	14,543,000	123,756,000	1,747,199,000	625,053,000
Kerosene (gals.)	219,908,000	41,000	81,866,000	456,064,000	117,395,000
Lubricants (gals.)	118,494,000	74,000	37,658,000	299,689,000	67,652,000
Wax (lbs.)	53,642,000	425,000	29,012,000	95,077,000	19,304,000
Gas, fuel oils (gals.)	1,203,906,000	55,320,000	132,571,000	†801,757,000	.....

*From Bureau of Foreign & Domestic Commerce. Exports, except for wax, include shipments to Alaska, Hawaii and Porto Rico.
†These stocks for east of California only.

RUNS TO STILLS AND OUTPUT OF REFINERIES IN THE UNITED STATES, MARCH, 1926

Oils run to stills (bbls.):	Crude Oils—Domestic	Crude Oils—Foreign	Unfinished Oils	Nat.-Gas Gasoline	Total Oils Run to Stills
East Coast	7,830,000	2,422,000	903,000	485,000	11,640,000
Appalachian	2,223,000	.....	67,000	25,000	2,315,000
Indiana, Illinois, etc.	5,556,000	.....	163,000	91,000	5,810,000
Oklahoma, Kansas, etc.	7,268,000	.....	296,000	209,000	7,773,000
Texas	11,848,000	513,000	402,000	343,000	13,106,000
Louisiana and Arkansas	5,116,000	933,000	212,000	58,000	6,319,000
Rocky Mountain	2,341,000	.....	629,000	79,000	3,049,000
California	16,443,000	.....	*613,000	405,000	17,461,000
Total U. S.	58,625,000	3,868,000	3,285,000	1,695,000	67,473,000
Daily aver., 3/25	1,891,000	124,000	106,000	54,700	2,176,500
Daily aver., 2/26	1,897,300	113,100	109,700	49,300	2,169,400
Texas Gulf Coast	9,030,000	513,000	364,000	312,000	10,219,000
La. Gulf Coast	3,574,000	933,000	144,000	1,000	4,652,000
Output and losses:	Gasoline (Gals.)	Kerosene (Gals.)	Gas and Fuel Oils (Gals.)	Lubricants (Gals.)	Wax (Lbs.)
East Coast	154,080,000	46,205,000	205,365,000	33,810,000	20,509,000
Appalachian	39,717,000	13,664,000	19,477,000	15,617,000	7,509,000
Indiana, Illinois, etc.	124,514,000	16,353,000	66,141,000	11,334,000	6,197,000
Oklahoma, Kansas, etc.	158,920,000	29,475,000	108,895,000	9,539,000	4,793,000
Texas	202,116,000	64,780,000	208,233,000	26,641,000	4,595,000
Louisiana and Arkansas	61,656,000	26,512,000	119,288,000	1,185,000	7,292,000
Rocky Mountain	55,428,000	5,646,000	31,848,000	2,625,000	4,434,000
California	173,112,000	27,743,000	485,716,000	9,431,000	.....
Total U. S.	969,543,000	230,378,000	1,244,967,000	110,182,000	55,329,000
Daily aver., 3/26	31,276,000	7,432,000	40,100,000	3,554,000	1,785,000
Daily aver., 2/26	30,840,000	7,071,000	40,601,000	3,639,000	1,783,000
Texas Gulf Coast	156,105,000	56,004,000	158,192,000	25,767,000	4,359,000
La. Gulf Coast	48,075,000	24,410,000	72,243,000	1,132,000	7,292,000
Output and losses (cont.):	Coke (Tons)	Asphalt (Tons)	Other Fin. Prod. (Gals.)	Unfinished Prod. (Gals.)	Losses (Bbls.)
East Coast	15,833	88,118	2,776,000	630,000	462,000
Appalachian	1,688	.....	1,205,000	757,000	125,000
Indiana, Illinois, etc.	20,305	16,754	4,365,000	1,672,000	222,000
Oklahoma, Kansas, etc.	10,274	630	1,493,000	2,507,000	297,000
Texas	12,327	24,279	365,000	15,332,000	580,000
Louisiana and Arkansas	12,619	35,387	5,777,000	34,487,000	101,000
Rocky Mountain	7,593	1,472	40,000	26,632,000	66,000
California	.....	43,956	8,487,000	*10,212,000	206,000
Total U. S.	80,689	210,596	25,108,000	92,229,000	2,059,000
Daily aver., 3/26	2,603	6,793	810,000	2,975,000	66,400
Daily aver., 2/26	2,289	5,445	722,000	3,511,000	63,100
Texas Gulf Coast	10,285	24,279	195,000	3,907,000	497,000
La. Gulf Coast	12,239	34,087	5,334,000	30,260,000	50,022

*Includes 130,000 bbls. net tops rerun.

GASOLINE PRODUCTION BY THE VARIOUS METHODS—MARCH, 1926
(Gallons)

	Straight Run	Pct.	Cracked	Pct.	Natural-Gas Gasoline	Pct.	Total
Gulf Coast	77,182,000	50	56,528,000	37	20,370,000	13	154,080,000
Appalachian	27,483,000	69	11,184,000	28	1,050,000	3	39,717,000
Indiana and Illinois	74,282,000	60	46,410,000	37	3,822,000	3	124,514,000
Oklahoma and Kansas	104,960,000	66	45,182,000	28	8,778,000	6	158,920,000
Texas	109,765,000	54	77,945,000	39	14,406,000	7	202,116,000
Louisiana and Arkansas	38,333,000	62	20,887,000	34	2,436,000	4	61,656,000
Rocky Mountain	26,673,000	48	25,437,000	46	3,318,000	6	55,428,000
California	155,992,000	90	110,000	..	17,010,000	10	172,112,000
Total U. S.	614,670,000	63	283,683,000	30	71,190,000	7	969,543,000
Total U. S. 2/26	553,051,000	64	252,472,000	29	58,002,000	7	863,525,000
Texas and Louisiana Gulf Coasts*	98,178,000	48	92,858,000	46	13,146,000	6	204,180,000

*Included above under Texas, Louisiana and Arkansas.

STOCKS HELD BY THE REFINING COMPANIES IN THE UNITED STATES MARCH 31, 1926

	Gasoline (Gals.)	Kerosene (Gals.)	Gas and Fuel Oils (Gals.)	Lubricants (Gals.)
East Coast	424,106,000	56,501,000	206,061,000	119,486,000
Appalachian	47,383,000	9,129,000	20,859,000	36,445,000
Indiana and Illinois	258,790,000	35,382,000	34,100,000	33,473,000
Oklahoma and Kansas	167,568,000	15,150,000	139,926,000	19,553,000
Texas	235,143,000	66,989,000	285,642,000	66,380,000
Louisiana and Arkansas	159,567,000	19,771,000	107,557,000	4,435,000
Rocky Mountain	197,910,000	12,613,000	57,088,000	7,841,000
California	445,869,000	78,372,000	.....	33,270,000
Total U. S.	1,936,336,000	293,907,000	851,234,000	320,883,000
Total U. S. 2/28/26	1,858,659,000	287,994,000	900,670,000	332,176,000
Texas Gulf Coast	208,137,000	57,357,000	244,160,000	64,937,000
Louisiana Gulf Coast	152,600,000	19,315,000	72,387,000	4,431,000

	Wax (Lbs.)	Coke (Tons)	Asphalt (Tons)	Other Fin. Prod. (Gals.)	Unfinished Oils (Bbls.)
East Coast	56,806,000	6,757	103,894	6,303,000	7,159,000
Appalachian	15,324,000	634	79	2,342,000	1,026,000
Indiana, Illinois, etc.	27,682,000	12,976	17,069	21,808,000	3,369,000
Oklahoma, Kansas, etc.	3,869,000	26,054	831	3,632,000	1,860,000
Texas	8,175,000	56,411	7,655	296,000	7,574,000
Louisiana and Arkansas	9,794,000	59,169	29,413	2,223,000	3,020,000
Rocky Mountain	8,594,000	57,819	8,452	83,000	1,741,000
California	97,000	.....	27,659	14,432,000	*13,349,000
Total U. S.	130,341,000	219,820	195,052	51,119,000	39,098,000
Total U. S. 2/28/26	123,964,000	210,247	182,063	45,076,000	38,808,000
Texas Gulf Coast	8,158,000	51,841	7,655	152,000	7,065,000
Louisiana Gulf Coast	9,794,000	57,601	29,308	1,962,000	2,842,000

*Includes 5,838,000 bbls. tops in storage.

Natural-Gas Gasoline

The production of natural-gas gasoline in the United States for March, 1926, amounted to 113,147,000 gallons, a daily average of 3,650,000 gallons. This constituted a record production and resulted from new high monthly totals for the Mid-Continent Field and for California. Production also increased materially in the Rocky Mountain area, but suffered a slight drop in the Appalachian region, where gas demands dropped off. Stocks of raw natural-gas gasoline at the end of the month were 20,644,000 gallons, an increase during the month of 3,070,000 gallons, or 17 per cent.

	Natural-Gas Gasoline—Production (Net)*	Natural-Gas Gasoline—Stocks End of Month	Blended Motor Fuel—Nat.-Gas Gasoline Used in Blends	Blended Motor Fuel—Naphtha or Other Oils Used in Blends	Blended Motor Fuel—Stocks End of Month
Appalachian	10,200,000	3,284,000	282,000	479,000	423,000

In its own words:

"The Bureau of Mines Has Inaugurated a Campaign"

—"To Increase Production"—

TRET-O-LITE has immeasurably increased production of pipe line oil, both by extracting the petroleum from emulsions and by making it pay the producer to *drill* for 100% emulsions.

—"To Conserve Natural Resources"—

TRET-O-LITE has proved one of the greatest conservers of natural resources of all time, for it reclaims *ALL* of the pipe line oil from "wet oil" and "tank bottoms." It has recovered hundreds of millions of dollars worth of petroleum.

—"To Reduce the Expense and Hazards Incident to the Recovery of Oil"

Here, again, the achievement of TRET-O-LITE stands unsurpassed. Chemical treatment costs only a few cents per barrel of recovered oil. Installation cost is almost nothing. *No special equipment to be left idle when the process is no longer needed.*

Our field experts are at your service to show you how TRET-O-LITE can help you conserve your own and the nation's resources.

PROCESS PATENTED

WM. S. BARNICKEL & COMPANY
ST. LOUIS, MO.

Offices and Plant: Webster Grove, St. Louis County, Mo.

TRET-O-LITE

REG. U. S. PAT. OFF.

Public Sale

Oil Refinery Properties

of Southern Oil Corporation

at Sapulpa, Oklahoma, May 25, 1926

At the Court House, Sapulpa, beginning May 25, 1926, at 11 A. M.

Refineries Pipe Lines
Tank Cars Machinery
Miscellaneous Property

the following oil properties of the Southern Oil Corporation free of liens and encumbrances.

Yale Refinery — fully equipped, 5500 bbls. capacity; 222,000 bbls. crude storage, well water plant and storage tanks. Good switching service; main buildings of brick.

Pipe Lines—main and gathering, from Northwest Hominy thru Osage, Cleveland, Jennings, Yale, Drumright and Shamrock fields. Now in use; in good shape.

Filling Stations — at Yale and Drumright; 3-story office and garage building, pipe line warehouse and goods at Drumright.

69 Tank Cars — capacity 10,000—8,000

Walters Refinery—fully equipped, 2000 bbls. capacity, one 55 M storage tank, 4 in line to Devol Station.

Total main lines in Oklahoma:

25,970′	2″ pipe
91,760′	3″ pipe
378,825′	4″ pipe

Phone Lines—following all main lines.

Cottages—at Yale and Drumright and various pump stations.

Miscellaneous—machinery and equipment.

Address inquiries to—

R. E. WILSEY
Chairman Bondholders Committee,
First National Bank Building
Chicago

Indiana, Illinois, etc.	1,800,000	315,000	73,000	7,000	22,000
Oklahoma, Kansas, etc.	41,900,000	10,907,000	2,801,000	4,920,000	1,879,000
Texas	19,100,000	3,798,000	336,000	621,000	253,000
Louisiana and Arkansas	6,200,000	1,079,000	28,000	.....	1,000
Rocky Mountain	3,400,000	377,000	79,000	159,000	298,000
Total east of California	82,600,000	19,760,000	3,599,000	6,186,000	2,876,000
California	30,547,000	884,000	Not available		10,000
Total U. S.	113,147,000	20,644,000	.....	.....	2,886,000
Daily average	3,650,000	.....	.....	.....	.....

*1 per cent estimated.

The indicated output of motor fuel in the United States from the above and other sources may be expressed by the following table:

(Gallons)	February	March
Gasoline produced at refineries	863,500,000	969,500,000
Natural-gas gasoline produced at plants	100,000,000	112,100,000
Benzol production*	7,000,000	7,600,000
Less natural-gas gasoline blended at refineries	58,000,000	71,200,000
Less natural-gas gasoline run through refinery pipe lines	†9,800,000	11,000,000
Total United States	902,700,000	1,007,900,000
Daily average	32,200,000	32,500,000

*Estimated with production of by-product as basis. †Revised.

OPERATIONS IN SAN JUAN BASIN RESUMED AS WEATHER IMPROVES

By Special Correspondent

FARMINGTON, N. Mex., May 8.—Continued fair weather has dried the roads and caused a rapid resumption of oil activities. The roads are still rough and rapid travel and heavy loads are not yet possible but each day finds the roads improving from t r a v e l and the work of maintenance crews, so that in a short time development work will be back to normal. Work on all the wells that had to close down on account of the muddy roads has been resumed. The casing for the Erdman well was taken out last week and the crew started running it. As soon as this is in place drilling will be resumed and it is expected the Dakota sands will be encountered within 200 feet from the present bottom of the hole. This well is located on the Red Mesa structure, Section 23-33-12, and is now at a depth of 3,135 feet.

E. J. Miley, operating on the Red Mesa structure on No. 1 Hutchison, Section 32-33-12, about 20 miles north of Farmington, has reached a depth of 250 feet, and is drilling.

The Portage Oil & Gas Syndicate, operating on the Glade structure in Section 24-30-13, 6 miles northeast of Farmington, has reached a depth of 1,340 feet. It has been able to continue drilling through the storm period for the reason that it was using gas from its own well for fuel. Its objective is the Picture Cliff sands, which it expects to encounter at about 1,500 feet, although it is prepared to go to 2,000 feet if necessary.

The H. L. Williams interests, drilling on Williams' No. 1 Hogback, has reached a depth of 1,540 feet and expects to encounter the sand in which production was reported in the Maddox well which was drilled in this proximity about 15 years ago. The Williams well is located on Section 30-30-15, about 15 miles northwest of Farmington.

The Ross-Bloomfield Royalty Co., operating in the Bloomfield district on Viles permit No. 1, completed setting casing at 1,610 feet and resumed drilling and at the last report had reached a depth of 1,650 feet. It expects to go to the Picture Cliff sand which is estimated to be about 2,000 feet at that location. It is located on Section 11-29-11, about 12 miles east of Farmington.

Starting Deep Test

The Union Oil & Mining Co., which is made up of a number of Kentucky operators, is starting a deep test with a standard rig in the Blanco district on Section 8-29-9, about 20 miles east of Farmington, had reached a depth of 600 feet at the last report. It is using an oil-burning engine and gets its supply of fuel from the Hogback wells of the Midwest Refining Co.

W. R. Childers has moved his rig from the Ute Pasture structure to the Mancos structure farther north and has started drilling and is down 100 feet. This location is 19 miles north of Shiprock, on the Mancos River. He is bringing in a machine to the Ute pasture well, No. 1, which was drilled to a depth of 2,050 feet with a rig, and states he will resume drilling on this well in about two weeks. It was believed to have been very close to production when it was found necessary to change rigs. This well is on Section 24-31-15, and is about 20 miles northwest of Farmington.

The Continental-Santa Fe companies, operating on the Rattlesnake structure, Section 2-29-19, in well No. 17 (the deep test) struck an artesian flow of good pure water in the McElmo formation at a depth of 1,950 feet. The flow is estimated at at least 3,000 bbls. This will be cased off and the hole continued. It is now planned to run casing and let the water flow between strings and utilize the water for domestic and drilling purposes.

The rig that was being used by these companies in drilling No. 15, has been moved to No. 5, which was a 325-bbl. well, for the purpose of deepening it, with the expectation that its flow would be increased. They are closed down on No. 5 awaiting the arrival of a stem.

The Continental Oil Co., operating on Table Mesa structure Section 10-27-17, spudded in No. 7, which is located 1,200 feet south and 600 feet west of No. 1, and is about 25 miles southwest of Farmington.

The Continental Oil Co., operating on the Tocito structure which it is drilling on a 50-50 basis with the Gypsy Oil Co., the owner, has spudded No. 1, 1 mile north of the Gypsy No. 1 and is about 36 miles southwest of Farmington. The well is being drilled by a rig used for shallow production on Hogback, Rattlesnake and Table Mesa structures. They were down 250 feet at the last report.

Pipe Line Progress

Rapid progress is being made on the 4-inch pipe line from the Rattlesnake and Table Mesa structures to the Santa Fee Railroad at Gallup, and it is estimated the line will be ready to carry oil by June 1.

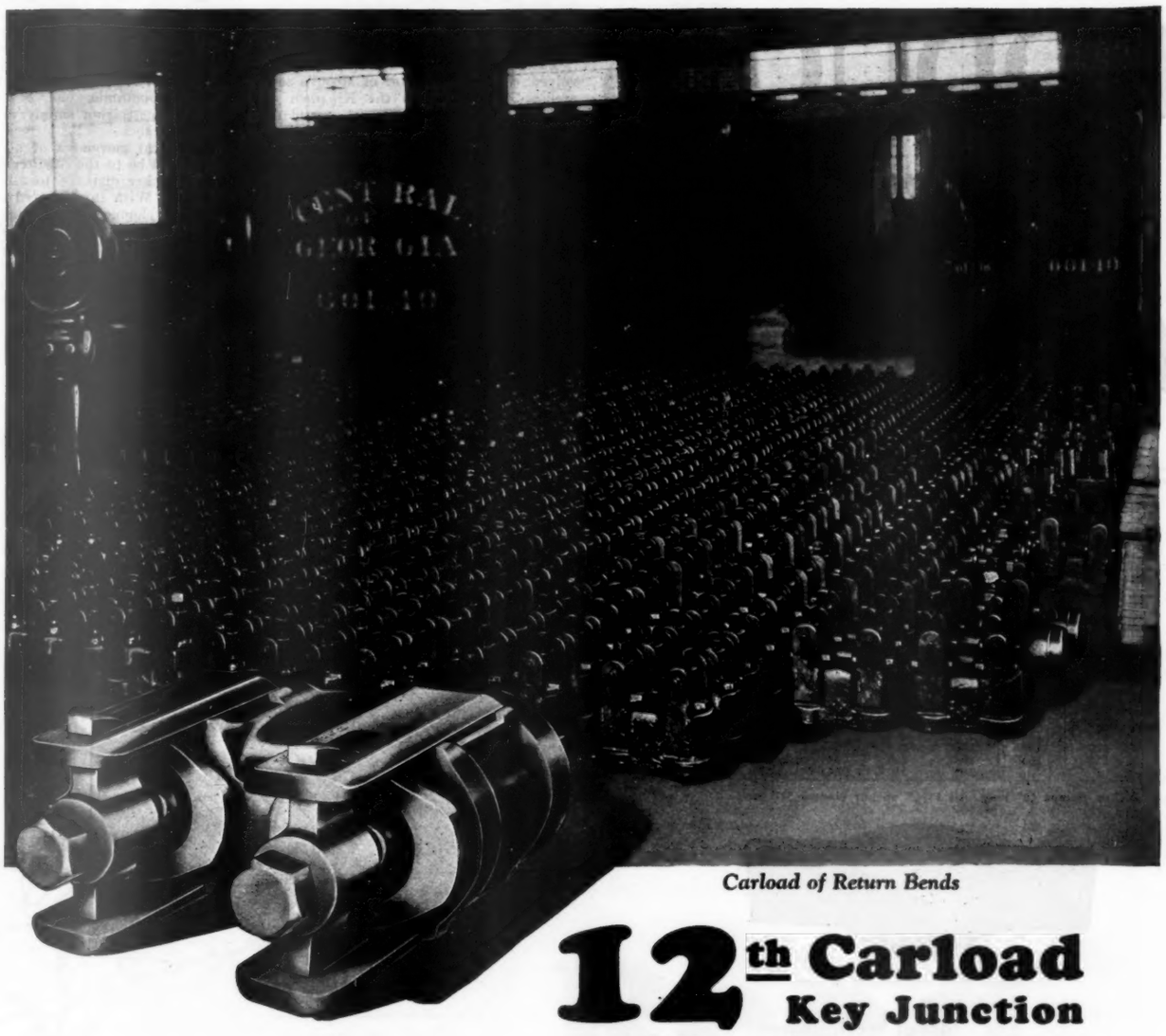
Herbert J. Hagerman, special commissioner to the Navajo Tribe assisted by K. B. Nowels and J. H. Hassheider of the Bureau of Mines and Engineers Post and Radcliffe, are at Shiprock agency doing the preliminary work incident to holding the second sale of leases on the Navajo reservation. It is expected the sale will be held within 60 days but the definite date has not yet been announced.

PRAIRIE SHIPMENTS

Shipments of the Prairie Pipe Line Co. totaled 4,332,971.82 bbls. during April, a daily average of 144,432. This compares to a daily average of 147,195 bbls. last April and the following averages for the months named:

1926—	Barrels
March	148,001
February	145,407
January	135,077
1925—	
December	134,909
November	128,359
October	128,731
September	132,945
August	139,306
July	155,568
June	157,204
May	152,253
April	147,195

Another Carload of Key Junction and Terminal Boxes Going Out—



Carload of Return Bends

12th Carload Key Junction and Terminal Boxes to leave our plant this year.

THIS popularity definitely establishes Key Junction and Terminal Boxes as the standard equipment for use in Oil Refineries.

The strong construction and special design enables them to withstand temperatures and pressures under any condition of service.

These fittings are made to suit any size tube and tube center measurement, for all temperatures, pressures and working conditions, and in any desired form of assembly. We manufacture special fittings for all types of Superheaters, Preheaters, and High and Low-Pressure Oil Still Equipment.

Key Boiler Equipment Company

EAST ST. LOUIS • • • • ILLINOIS

This is No. 10 of a series on specifications—keep for reference when ordering.

BARSCO PRODUCTS

for Oil and Gas Well Drilling

Anchor Clamps—43 Inches Long
Stronger—More Rigid—Less Weight

To fasten tubing or casing to derrick sills. To hold down tubing or casing when packer is set. In ordering, always specify size of material desired.

Size Pipe for Inches	Size of Steel, Inches							
	1x4	1x5	1x6	1x8	1x10	1¼x6	1¼x8	1½x8
	Weight, Pounds	Weight, Pounds	Weight, Pounds	Weight, Pounds	Weight, Pounds	Weight, Pounds	Weight, Pounds	Weight, Pounds
2	100	130	155	215	260	210	260	.....
3	100	130	155	215	260	210	260	.....
4	100	130	155	215	260	210	260	.....
5	100	130	155	215	260	210	260	.....
5 3-16	100	130	155	215	260	210	260	.....
6	105	135	160	220	270	215	270	.....
6¼	105	135	160	220	270	215	270	.....
6⅝	105	135	160	220	270	215	270	.....
8¼	110	135	165	230	280	220	280	325
10	115	140	170	240	290	230	290	336
*12¼	120	150	190	260	310	235	310	364
*15⅝	130	165	205	280	345	260	345	417
20	.....	.....	205	280	345	325	345	417

*All 12¼" anchor clamps 48" long. All 15¼" anchor clamps 52" long.

Tubing and Casing Clamps—24 Inches Long
Stronger—More Rigid—Less Weight

Size pipe for Inches	Size of Steel, Inches		
	1x4 Weight, Pounds	1x5 Weight, Pounds	1x6 Weight, Pounds
2	60	75	90
3	60	75	90
4	60	75	90
5	65	75	90
5 3-16	65	75	90
6	65	80	95
6¼	65	80	95
6⅝	65	80	95
8¼	70	85	100
10	75	90	115
12¼	75	90	130
15¼	85	95	150
20	85	95	150

Stocks carried by Dealers.

BARTLESVILLE SUPPLY COMPANY of Missouri
3400 MAURY AVENUE—ST. LOUIS, MISSOURI

Export Office: 2 Rector St., New York City

Manufacturer's Representatives

B. & A. Specialty Co., Tulsa, Okla. Robert J. Miller Co., Houston, Tex. Miller Tank & Supply Co., Casper, Wyo.

—Write for Complete Catalog

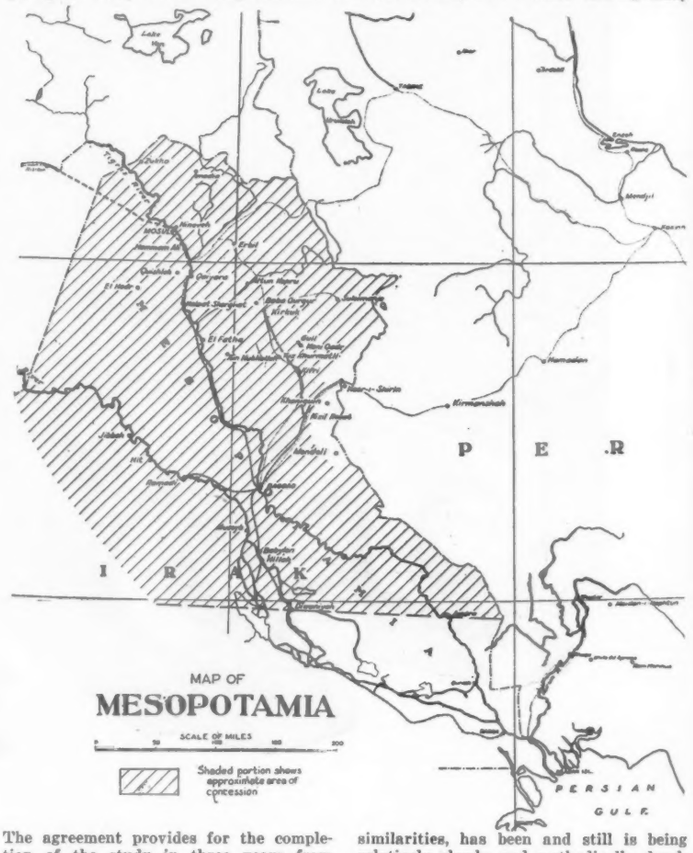
WILL BE YEARS BEFORE IRAQ OIL WILL BECOME COMMERCIAL FACTOR

By L. M. Fanning

While it will be a matter of years before commercial oil production is secured and transportation for petroleum established from the Iraq or Mesopotamian fields, the recent agreement reached assuring participation of the American group in the Turkish Petroleum Co. again focuses attention on the possibilities of this area.

There are still political questions involved, chiefly the matter of Mosul's sovereignty, now held by the Kingdom of Iraq, which is under British mandate, and claimed by Turkey. Even though this dispute will probably continue for some time, there is now every indication that exploration and development work by the Turkish Petroleum Co. as specified under its concessionary agreement with the Iraq Government will go forward without any further delay.

It is estimated that at least two years will be required to make a comprehensive geological study of the Iraq concession.



The agreement provides for the completion of the study in three years from March 14, 1925. The concession area comprises 90,000 square miles, embracing the provinces of Mosul and Bagdad, and much of the geological work will be of a pioneer nature.

On the completion of the geological work, the Turkish Petroleum Co. will be permitted to select 24 blocks of eight square miles each, and 12 months after this selection any individual or company may bid for leases at annual auctions.

Two Years' Drilling Needed

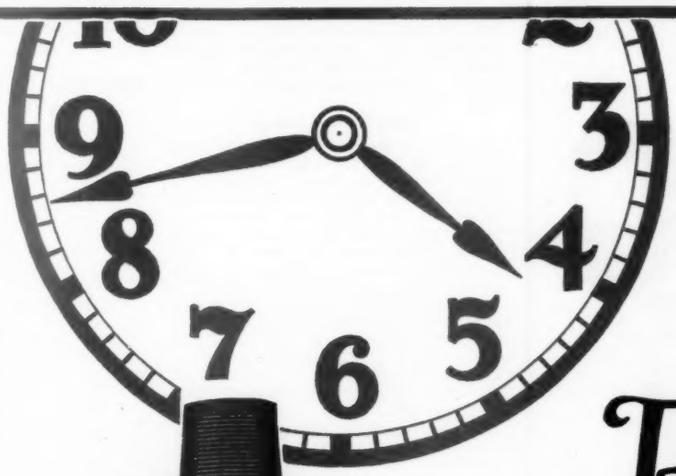
A drilling campaign extending over at least two years will be required before an adequate idea can be obtained of Iraq's oil deposits, it is estimated. If by that time districts are proven of sufficient productivity, a pipe line will have to be laid, consuming probably another year. This would indicate that the best that can be expected is to see Mesopotamian oil reaching the markets of the world not before 1931, or five years hence.

Such geological studies as have been made of the Mosul and Bagdad Fields have been favorable to the finding of oil in commercial quantities, and the diplomatic activities with regard to Mesopotamia are eloquent enough as to the probable richness of the territory. Should this prove to be the case, the development of the territory under the prescribed system of annual auctions carries with it the possibility of much more rapid production than has been the case in Persia. With necessary pipe line outlet, an output might be developed on a scale that would make Mesopotamia one of the chief sources of petroleum supply for the European markets.

The logical movement of oil from the fields would be to the Mediterranean Sea in easy tanker distance to all European countries. With this assured supply the further development of refining facilities abroad would undoubtedly follow, with resultant important changes in the world movement of oil. These are factors which distinguish the Iraq oil activities notably from Persia, which while offering many similarities, has been and still is being relatively slowly and methodically developed.

All of Persia's petroleum production is controlled by one company, the Anglo-Persian Oil Co., and the bulk of the output is coming from the Maidan-i Naftun Field which is situated approximately 140 miles north, northeast of the Port of Abadan on the Shattel-Arab, where it flows into the Persian Gulf. The early development of this field involved many disappointments and hardships. The first development was in 1901 when William Knox D'Arcy secured a concession which embraces the present field. It was not until 1908 that the productivity of the field was proved, and development extended to the adjacent field of Maidan-i-Naftek. The next step was the building of a pipe line to Abadan and the erection of a complete refinery at that place. This refinery has a capacity of over 55,000 bbls. a day.

As further production was developed in Persia, the Anglo-Persian Oil Co. built a large refinery at Landarcy, Wales, which now handles a large part of its crude pro-



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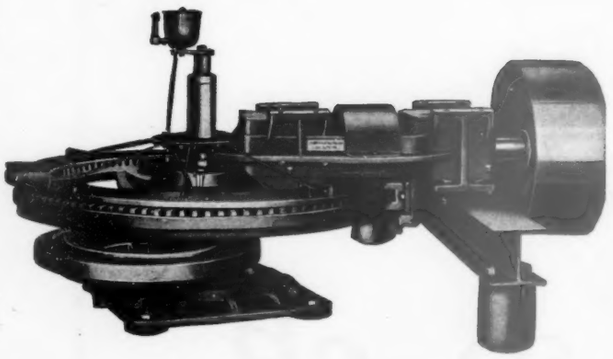

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duction and from which the company distributes petroleum products to practically all of the European markets. It also has a refinery at Grangemouth, Scotland. From a production of 1,857,000 bbls. in 1913, Persian output in 1925 was nearly 35,000,000, the country ranking fourth among the producing countries of the world. Persian production has doubled since 1921.

Differs From Persia

Under different development conditions, it may be expected that Mesopotamia, should it prove to be as productive and with favorable market conditions, would be able to send its oil into the markets of the world much more quickly and in larger volume than has been the case with Persia, under one company operation.

While Iraq is an untested oil territory and many difficulties are involved before it can be proven by the drill, the occurrence of oil in Mesopotamia has been known since ancient times. The first recorded use of petroleum was the asphalt gathered from seepages of the Euphrates Valley and used for mortaring bricks in the buildings of ancient Mesopotamian rulers.

Since ancient times Bagdad has been lighted with petroleum from seepages and hand-dug wells 75 to 100 miles north of it. The seepages located north of Mendeli at Naft Khana, and near Tuz Kermatli and Kerkuk are now in the hands of local lessees who have had the privilege of expoiting them for generations.

The method of distribution of oil is by donkeys sent by the Bagdad dealers to the well. The oil is put in cans, usually American gasoline or kerosene tins, and carried laboriously back to be sold in the crude state to the poorer people. The wells themselves are mere pits mostly only 20 to 30 feet deep. These fill slowly with oil and water and are bailed by hand, usually with the familiar five-gallon cans.

The heavy oil seepages are on the Euphrates, chiefly around the town of Hit some 80 miles west of Bagdad. There is little vegetation for the country is full of sulphur springs that form marshes below the city. Oil fires are burned under troughs where the heavy seepage oil is boiled to drive off the light fractions and leave the pitch that is the only product saved. The pitch is used for building, caulking boats and basket work. The desert around Hit contains cones of asphalt built up by gradual seepage and usually blowing off gas.

Valley Seepage Area

The whole Tigris Valley below Mosul to the Fatheh Gorge where the river flows through the last hills into the flat alluvial plain is a seepage area. Being in a turbulent area, the seepages have not been worked in modern times except near the city.

The most important of these has been at Qaiyara, about 40 miles south of Mosul. The Mosul dealers have taken oil in cans and skins from this locality for generations by paying a price to the Arab owners of the property. When the Germans came to stiffen the Turkish resistance to the British early in the war they drilled seven shallow wells, averaging 200 feet deep. By this means they developed a small production which they ran through a primitive still securing sufficient light products to keep up the transport service in the gap getween the Kalat Shergat end of the Bagdad Railway and the western railhead which was some 150 miles west of Mosul.

The Tigris Valley is not the only seepage area around Mosul. There are others in the desert east of the river, and others in the mountainous valleys to the north.

The prospective Iraq fields are at least 500 miles from either the Mediterranean Sea or the Persian Gulf. In laying a pipe line to the Mediterranean it would have to go through Syria, which is French mandated territory. To the Persian Gulf, the line would go through Persia following the Tigris-Euphrates Valleys. In either case it would pass through the territory of uncivilized tribes.

In the San Remo agreement, Great Britain obtained from France the privilege of building pipe lines both from Persia and Mesopotamia through French mandated territory. France also agreed to accord facilities in the terminal ports for the acquisition of property necessary for the erection of depots, railway tracks, refineries, loading quays, etc.

BRITISH REFINING AFFECTING IMPORTS

(Continued from Page 34)

receipts of the individual products has declined in every case except that of fuel oil, of which the United States supplied 15.3 per cent in 1924 and 17 per cent in 1925. The reduction in proportion of the total is most marked in kerosene and gas oil; the United States supplied 81 per cent and 97.0 per cent of these products in 1924 and 58 and 80 per cent, respectively, in 1925.

Of the 561,000,000 imperial gallons of crude imported into Great Britain, 43 per cent came from the Persian fields, 20 from Curacao, 14 from Mexico, and the balance from the United States, Rusia, Rumania and other countries. Of the 405,000,000 gallons of gasoline, 47 per cent came from the United States, 16 from Persia and 7 from Russia. Balikpapan, Singapore, Curacao, Rumania and Trinidad were among other sources.

Of the 334,000,000 gallons of fuel oil Mexico furnished 49 per cent; the United States, 24; and Russia, 16. Curacao, Trinidad and Singapore contributed to the balance. Of the 141,000,000 gallons of kerosene, 58 per cent came from the United States, 12 from Mexico, and 10 from Russia. Rumania and Persia also sent shipments. The United States furnished 85 per cent of the lubricants, a large share of the remainder coming from Mexico, Russia and Curacao. The United States supplied more than half of the 72,000,000 gallons of gas oil; Mexico, 8 per cent and Russia and Rumania were among other contributors.

The Anglo-Persian group brought in 433,000,000 gallons, approximately 26 per cent of the total, divided among its subsidiaries—the National Oil Refineries importing 281,000,000, or 17 per cent; Scottish Oils, 100,000,000, or 6 per cent; and the British Petroleum Co., 52,000,000, or 3 per cent. The largest individual importer, however, was the Shell Marketing Co. with 380,000,000, or 24 per cent of the total. Six other companies shared in the importation of the year.

PREDICTS 100,000,000 BARRELS FROM REAGAN

AUSTIN, Tex., May 8. — Geologists have assured a production of 100,000,000 bbls. of oil in the Reagan County Field of the University of Texas land alone, Land Commissioner J. T. Robison said here, on his return from an inspection of the field.

"This is the most orderly-developed field, the most economically conducted production I have ever seen in Texas," Mr. Robison declared.

The University of Texas' royalties from the production in sight of the Reagan County Field will be anywhere from $12,000,000 to $24,000,000 depending on the price of the oil, Mr. Robison said.

He predicted other fields in the same general section will be located to rival the Big Lake Field, with bright prospect that entirely new production may be brought in on other university tracts in west Texas.

Mr. Robison said there will be no more lists of State-owned oil land printed for sale to highest bidders this year, for the reason that the Legislature failed to appropriate the money necessary for printing the lists.

OIL MAN'S SON HONORED

Lloyd Hilton Smith of Landsdowne, Pa., son of R. H. Smith, president of The Oklahoma Co., and known to oil men as the discoverer of the Wewoka Pool, has been elected an associate editor of the Yale News in competition with some 50 freshmen. The associate editors chosen from the class of '29 will edit the paper in their senior year.

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NATURAL GASOLINE INDUSTRY TOLD TO EXPAND MARKET FOR PRODUCTS

By C. C. Herndon*

We are gathered here as people interested in the natural gasoline business. That is a great business, judged by any standard. It has converted a despised and wasted by-product of the oil fields into one of the important mineral resources of civilization. Conservation of that kind is conservation of the most practical and praiseworthy kind. Much of the credit for this splendid achievement is due to the technologists and some of the most brilliant of these technical men are with us tonight. It would be impossible to overrate the importance of the contributions of science to the processes of gasoline manufacture. The scientist is the torchbearer of our business. It is his devoted toil, by night and by day, that smoothes our path of manufacture.

And because our industry is young, many of these men who are blazing scientific trails for us are little more than boys. At a dinner given by my company not long ago for its plant superintendents and technical men in the natural gasoline department, the average age of the men present was 27 years. Yet these men are successfully carrying heavy duties and large responsibilities. Truly and peculiarly, it is a young man's business. These young men are favorites of fortune, but are carving their own careers. Saint Gaudens, the famous sculptor, was once asked how he created a great statue. "Why," he replied, "it is simple as can be; I just take a block of marble and chisel off the parts that I don't want." And so these young men have taken the rough block of opportunity and have chiseled away what was not needed for their careers. In this business a man stands on his own merit, little aided by the accidents of birth or fortune. A prominent man was asked recently for information regarding a youth whom a gasoline manufacturer thought of employing as an engineer. The prominent man wrote: "I believe Mr. Blank to be an excellent young man. He is a grandson of General Brown, a nephew of Senator Smith, a cousin of Judge Jones, and is related to the best aristocracy in this country." To which the gasoline manufacturer replied: "Thanks for your letter regarding Mr. Blank, but you misunderstood our inquiry, since we want this young man for engineering work, not for breeding purposes."

But the technical men, however highly we regard them, cannot monopolize the plaudits. The men who have courageously supplied the capital for untried ventures, and the men who have wrought with their hands, share in the credit for all worthy accomplishments. Andrew Carnegie was once asked which he considered the most important factor in industry—capital, brains or labor. The canny Scot answered with the question: "Which is the most important leg of a three-legged stool?"

Our product, natural gasoline, grows in importance, and new applications of it in refining and for other purposes are being developed and devised. This expanding market should give us assurance of reasonable profit, if we conduct our affairs wisely. The predictions of a decline in the consumption of gasoline that will result from the building of more efficient automobiles are still somewhat apocryphal. For instance, I would be inclined to take with a grain of salt the story of the Ford owner who installed a carburetor that saved 30 per cent in fuel. Then he put in special spark plugs that saved another 30 per cent. Then he added a special manifold that saved 30 per cent. Finally, he added a special rear axle that gave a 30-per cent saving. And now, with a fuel economy of 120 per cent, he has to stop his car every 100 yards and bail gasoline out of his tank to keep it from running over.

But in spite of 101 old and new uses for gasoline, there remain a few uses to which it is not adapted. A motorist whose gasoline supply failed him on a country road saw a lad coming along the road with a large can in his hand. "Say, boy!" he yelled, "I hope that's gasoline you have in that can." "Well, I hope it ain't," returned the boy, "it would taste like the dickens on ma's pancakes."

My friends, we must study our market as intensively as we study our manufacturing method, for the one is no less important than the other. I think most of the economic maladjustments that have from time to time beset us have arisen from the fact that we were more skilful in manufacturing than in marketing, have tended toward over-emphasis on manufacturing and under-emphasis on selling. We have been too prone to get business through the resort of a poor salesman—price cutting. And sometimes we have let little foolish jealousies and apprehensions that somebody, somewhere, somehow, would get ahead of us in output or sales, lead us into extremes of competition as ridiculous as that of the storekeepers of whom I heard during the war. There were only two stores in the town, and the owner of one placed a sign in his window, reading: "We are 100 per cent American. We hate Germany, we hate Austria, we hate Russia, we hate France, we hate Italy, we hate England." The competitor, not to be outdone and fearing he might lose trade, stuck up in his window a sign, reading: "We are 200 per cent American. We hate everybody."

When we get in a hurry to make sales and begin cutting our price, we are frequently as wrong and ill-timed as the man who, when the steamer was only a few feet from the dock, came running madly from the dock gates, shouting to the officials to wait a moment. Without pausing in his stride, he flung his bag on the boat, made a desperate leap and landed on the deck with a crash. "Good," he gasped, as he was assisted to his feet.

"Just did make it. Another second and I would have missed it."

"Missed it!" exclaimed a nearby passenger, "why, man, this boat is just coming in!"

Reasonable Competition

Competition is the life of trade, says the adage; but that means reasonable competition. Reckless and excessive competition is costly to everybody, including eventually the consumer. There can be no permanent place in our business for the persistent price-cutter, and the man who starts a price-war usually winds up in the condition of the negro in the story. "Well, suh, boss," explained this boy. "Ah got into a li'l argument las' night with another cull'd genlm'n, and one thing led to another till Ah up and hit at him. Well, suh, it seemed lak dat kind of irritated him. He took and blacked mah eyes and bit off mah ears and mashed mah nose and split mah lip, and den he threw me down and stomped me in de stomach. Honest, boss, Ah never did git so sick of a cull'd genlm'n in mah life."

If you persist in crowding your output upon unreceptive markets and so end the year with small profits or none, you may console yourself with the reflection that such a reward for your toil is probably not more than 90 per cent due to your own stupidness, and that you had a lot of fun doing business anyway. Did you hear of the Irishman who bought a pig last fall at a cost of $10? During the winter he bought $10 worth of feed for it, and this spring he sold the pig for $17.50. A neighbor asked him how much he got for it and when Pat told him he said, "Well, you didn't make much on it, did you?" "Not," said Pat, "but you see I had the use of the pig all winter."

If we could have, from time to time, when our markets are unstable or approach crises, some of the concert of thought and action touching output and

*Extract of address delivered at annual dinner fifth annual convention, Association of Natural Gasoline Manufacturers, Tulsa, May 6.

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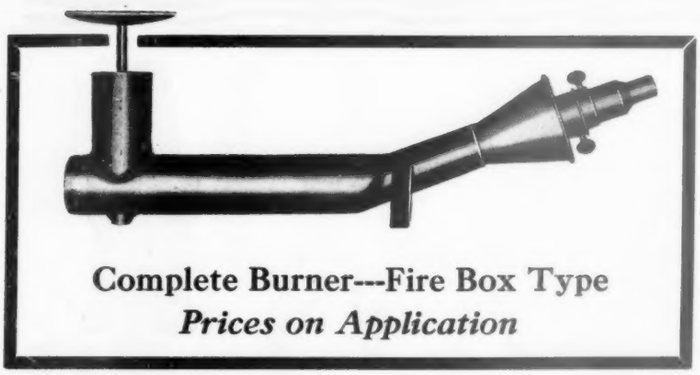

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sales that we frequently have in respect of manufacturing practices, our economic position would be greatly improved. I am not unaware of the legal restraints upon such co-operation, but a recent decision of the Supreme Court of the United States pointed out a considerable field in which such an association as ours can legitimately function for the common good through the interchange of information, and we should not neglect to do what may be thus lawfully done. During the last two or three years we have acquired some dearly bought knowledge concerning unwise marketing policies, and we should capitalize the lessons thus learned. An Irishman asked a Jew why it is that Jews are so wise. "Because," said the Jew, "we eat a certain kind of fish," and he offered to sell one for $10. After paying his money, the Irishman received a small dried fish. He bit into it, then exclaimed, "Why, this is only a smoked herring!" "See?" said the Jew. "You are getting wise already!"

Combination of Energy

In our business, as in any other, success comes through the combination of energy and common sense. Progress consists not merely in going somewhere. We must know where we are going and why. Did you hear of the colored motorcycle courier in the army who had unsuccessfully attempted to navigate a French highway in night traffic, and was later visited by his captain in the hospital? "Cap'n," explained the patient, "everything was jest goin' along fine, and den Ah see mah chance to dodge in between two motorcycles." "Well, what of it?" "Dat's all dey was to it, Cap'n. Dem two motorcycles was a truck." And there was the case of the two convivial gentlemen considerably mellowed with moonshine liquor who were flivvering along a dangerous road. "Bill," said Henry, "I wancha be very careful. Firs' thing y' know you'll have us in the ditch." "Me?" said Bill, "Why, I thought you was driving."

BIGGEST TANKER

A new oil tanker, the Gulfcrest, a 13,500-ton Diesel engine driven vessel, has been delivered to the Gulf Refining Co. by the American Brown Boveri Electric Corp. The Gulfcrest is the largest craft of its type in service in the United States, having a cargo capacity of 4,500,000 gallons and a deadweight tonnage, fully loaded, of 19,485 tons. The Gulfcrest will make her initial voyage to Port Arthur, Tex.

DUTCH BUY RUSSIAN OIL

The Russian trade with the Netherlands in petroleum products during 1925 was conducted through the Belgian company, "Petrofina." This company entered into a contract with the Russian Government during the early part of the year. The marked decrease in the trade during 1925 may be explained by the fact that the Dutch statistics did not record any imports of gasoline from Russia.

RECEIPTS OF CALIFORNIA OILS AND IMPORTS OF PETROLEUM

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the month of April totaled 2,804,000 bbls., a daily average of 93,467 bbls., compared with 2,928,000 bbls., a daily average of 94,452 bbls. for the month of March.

Receipts at Atlantic and Gulf Coast ports for the week ended May 1 totaled 824,000 bbls., a daily average of 117,715 bbls., against 448,000 bbls., a daily average of 64,000 bbls. for the week ended April 24.

CALIFORNIA OIL RECEIPTS AT ATLANTIC AND GULF COAST PORTS
(Barrels of 42 U. S. gallons.)

At Atlantic Coast Ports—	Total April	Total March	Week Ended May 1	Week Ended Apr. 24
Baltimore	571,000	217,000	96,000	140,000
Boston	154,000	78,000	.....	75,000
New York	850,000	1,514,000	344,000	75,000
Philadelphia	402,000	615,000	155,000	.....
Others	686,000	*604,000	156,000	158,000
Total	2,663,000	2,928,000	751,000	448,000
Daily average	88,767	94,452	107,286	64,000
At Gulf Coast Ports—				
Port Arthur and Sabine district	141,000	.....	73,000	.....
Daily average	4,700	.....	10,429	.....
Total Atlantic and Gulf Coast ports	2,804,000	2,928,000	824,000	448,000
Daily average	93,467	94,452	117,715	64,000

*Revised.

Imports of crude and refined oils at the principal ports for the month of April totaled 6,196,000 bbls. a daily average of 206,533 bbls., compared with 7,826,000 bbls., a daily average of 252,452 bbls. for the month of March.

Imports at the principal United States ports for the week ended May 1 totaled 1,121,000 bbls., a daily average of 160,143 bbls., compared with 1,228,000 bbls., a daily average of 175,429 bbls. for the week ended April 24.

IMPORTS OF PETROLEUM AT UNITED STATES PORTS
(Barrels of 42 U. S. gallons.)

At Atlantic Coast Ports—	Total April	Total March	Week Ended May 1	Week Ended Apr. 24
Baltimore	456,000	880,000	.....	50,000
Boston	420,000	494,000	.....	175,000
New York	2,305,000	2,534,000	689,000	488,000
Philadelphia	319,000	505,000	43,000	.....
Others	1,180,000	1,062,000	172,000	144,000
Total	4,680,000	5,475,000	910,000	857,000
Daily average	156,000	176,613	130,000	122,429
At Gulf Coast Ports—				
Galveston district	576,000	600,000	103,000	161,000
New Orleans and Baton Rouge	747,000	1,367,000	.....	170,000
Port Arthur and Sabine district	60,000	220,000	60,000	.....
Tampa	133,000	164,000	48,000	40,000
Total	1,516,000	2,351,000	211,000	371,000
Daily average	50,533	75,839	30,143	53,000
At All United States Ports—				
Total	6,196,000	7,826,000	1,121,000	1,228,000
Daily average	206,533	252,452	160,143	175,429

DOMESTIC EXPORTS OF PETROLEUM AND REFINED PRODUCTS

	Month of March 1925	Month of March 1926	9 Mos. Ended March 1925	9 Mos. Ended March 1926
Petroleum, crude, gallons	43,570,302	43,497,580	480,786,657	410,221,436
Value	$ 1,715,731	$ 1,829,191	$ 17,503,642	$ 18,401,710
Total refined petroleum, gallons	361,803,907	325,721,174	2,925,380,651	3,069,982,044
Value	$40,144,453	$38,350,555	$ 288,685,404	$ 328,096,078
Gasoline, naphtha and other light products, gallons	121,494,195	131,391,937	905,262,973	1,065,373,911
Value	$18,450,111	$19,324,843	$ 134,362,096	$ 161,320,351
Oils, illuminating, gallons	81,140,295	74,511,400	687,027,289	637,543,847
Value	$8,149,250	$ 8,301,815	$ 64,637,010	$ 65,862,181
Gas and fuel oil, gallons	121,485,655	88,620,369	1,059,981,341	1,026,192,676
Value	$4,827,978	$ 2,681,588	$ 33,354,011	$ 34,287,866
Lubricating oil, gallons	37,369,783	30,649,629	270,278,248	285,710,664
Value	$5,668,579	$ 7,318,218	$ 60,960,341	$ 65,907,015
Other refined petroleum products, gallons	313,979	347,365	2,830,801	4,540,960
Value	$ 48,535	$ 49,748	$ 381,946	$ 503,831
Paraffin wax, pounds	29,012,287	25,004,772	263,866,025	260,853,255
Value	$1,661,354	$ 1,410,675	$ 14,096,266	$ 14,577,960

ARE YOU PAYING FOR SPIRAL BITS WITHOUT USING THEM?

If you are not a user, undoubtedly you are paying the slight additional Spiral Bit price for wire lines or other drilling equipment and not getting the advantage of Spiral Bit performance.

If you think Spiral Bits are high priced, ask some user how they act in service. Many prominent contractors and some of the larger producing companies are using Leidecker Spiral Bits and they find them making substantial savings over the cost of making hole with old style bits.

The major advantage of Spiral Bits is, of course, their ability to make hole faster, easier and straighter. In this they have never disappointed anyone. The fact that they get right to work on the bottom and "thoroughly mix the mud" is what relieves the sticking and diving which is such severe punishment to drilling line and equipment. This removal of grief from the drilling operation is an exclusive feature and due credit should be given to Leidecker Spiral Bits.

LEIDECKER
SPIRAL BITS
Patent Allowed

Dressing to the concave form is essential to the superior performance of Spiral Bits. This is easily accomplished with the dressing form which is provided for the purpose. Spiral Bits are easily dressed and the increased footage per dressing as shown wherever they are used means a substantial saving in "work" per foot of hole. We are all searching for labor-saving methods and equipment.

LEIDECKER
Temper Screws
Write for prices.

You should use LEIDECKER SPIRAL BITS.
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Manufactured exclusively by

THE LEIDECKER TOOL CO.

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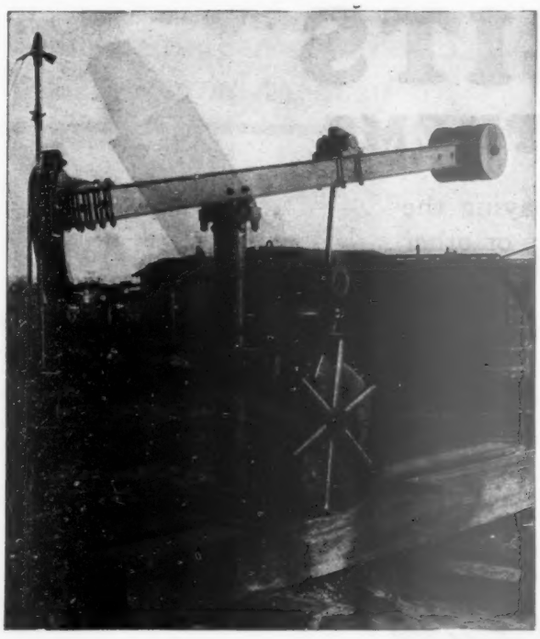

The New Oil Well Pumping Jack

THE "American" Totally Enclosed Oil Well Pumping Jack has been designed in answer to the demand for the efficient pumping of individual oil wells.

American Jacks are made in three sizes—12-inch to 15-inch stroke, 15-inch to 18-inch stroke and 18-inch to 22-inch stroke. All gears are totally enclosed and run in a bath of oil which floods the bearings, insuring smooth operation and long life. The head proper may be disengaged from the cable and swung back from the walking beam, permitting the rods to be pulled without moving the jack itself. There are no screw mechanisms or adjustments necessary. No gears are exposed. Compact, sturdy and economical in operation!

Ask for Bulletin 181

Agent: C. S. CARTER, Box 1511, Tulsa, Okla.

GENERAL OFFICES AND WORKS - AURORA, ILL.
THE AMERICAN WELL WORKS
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CRUDE OIL AUTOMOTIVE ENGINE INSTALLED IN FOUR-TON TRUCK

By L. M. Fanning
New York Bureau, The Oil and Gas Journal, 30 Church St., New York

Results obtained from experimental work in this country and abroad have appreciably advanced the possibility of a crude oil engine in the automotive field. Interest in this type of engine has been aroused recently by the showing in New York of the French Peugeot crude oil engine installed in a four-ton truck. The Peugeot company is now manufacturing these engines on a commercial basis, and some interesting results in fuel economy as compared with the present type of automotive engines are claimed.

Secretary of the Navy Wilbur recently announced the development of a heavy oil aircraft engine particularly adaptable for use in dirigibles. This is a two-cylinder engine which has been developed experimentally by the Navy Department and is likely to be used as a basis for a more powerful engine of the same type. The engine, it is believed, will greatly increase the safety of the rigid airship because of the heavy oil, which is less inflammable than the more volatile fuel.

The new engine is the invention of A. P. Attendu who has been interested in the development of a heavy oil engine for a great many years. The engine weighs only 3½ pounds per hourse power and is designed to develop 125 horse power. With the successful completion of tests in the experimental model, the Navy Department is prepared to proceed with the construction of larger engines.

The Peugeot motor shown in New York can work on any kind of oil, including the heaviest, according to representatives of the company. Its weight per horse-power is about the same as the weight of any automobile power unit, roughly, about 10 lbs. per horse power.

Is An Explosion Engine

The engine is an explosion engine in which the fuel is injected and it is of the constant volume combustion type. It works on the two-stroke cycle, and for trials and for truck propulsion has been built with two cylinders.

Representatives of the company stated that in road tests in the city of Paris the engine in a loaded four-ton truck using crude oil consumed 180 grammes (about 6 ounces) per horse power hour, this being about one-third less than the volume of consumption of gasoline in the four-cycle engine in a similar weight.

The Peugeot crude oil engine was first shown in the Paris Automobile Show in 1921. The first engine built by the company's experimental department was on the test bench for many months and was modified many times in its constructural details before the present engine was evolved. Since 1921 a number of these engines have been built, some have been fitted on trucks and been placed in regular service.

Some interesting trials of the engine installed in a Paris bus, weighing eight tons, were recently made. The trial lasted 15 days, 100 miles were covered every day in regular service, and the results were stated to be as satisfactory as gasoline motor operated buses.

In 1922 one of the crude oil engines was fitted on a standard passenger car on which a 700-mile trial was accomplished, the car carrying five passengers and heavy baggage.

Results obtained with the crude oil engine were so encouraging that the Peugeot Company decided to proceed with the manufacturing on a commercial basis of a four-ton truck propelled by this type of engine, and work on this equipment is now going forward at the company's plant at Lille, France.

The two cylinders of the engine are identical. The crank pins are set at 180 degrees and each cylinder head has a combustion head specially shaped in order to obtain a homogeneous mixture. The cylinder head or combustion chamber communicates with the cylinder itself through a small bottleneck shaped passage. The piston top is cone shaped, and has on the center a projection forming deflector, the diameter of which is slightly smaller than the diameter of the neck. Pure air is sent to the cylinder by means of a scavenging pump driven by an electric crank shaft. The burned gases are expelled through the higher row of ports, by the rush of air entering the cylinder through the lower row of ports.

The piston on the up stroke compresses the air and forces it into the combustion head to which it gains access through the small circular passage left between the inside wall of the neck and the projection or deflector on the top of the piston. The air rushes into the combustion chamber at a high speed and the shape of the chamber is such that a very high turbulence is created. It is at this particular time that the fuel is injected.

The fuel injector is placed in the center of the head. The fuel is sent to the injector by means of a pump of the plunger type and is forced at high pressure through the injector valve. It is finely divided and comes into violent contact with the air which as stated is animated by a very high velocity. Air and fuel under such conditions form a homogeneous mixture.

The air is so highly compressed (the compression ratio is 12 to 1) that the heat developed is sufficient to fire the charge, particularly when the combustion chamber has reached the normal working temperature. The explosion pushes the piston downwards on the working stroke and when it reaches the lowest position, fresh air comes in again forced by the scavenging pump. The burned gases are once more expelled and another cycle begins.

When the engine is cold, the rate of compression is not high enough to fire the charge without any outside medium. For starting, therefore, a special plug has been provided. The starting plug consists of principally a small coil of platinum wire, through which the current of a small battery can be switched. The red hot wire fires the charge at the end of the compression stroke and after a few revolutions of the engine the combustion chamber is sufficiently hot to fire the charge, already heated by the high compression ratio, without the aid of the starting plug which can be cut out.

When running on heavy oil and in order to get an easy start, kerosene is usually used. For this purpose a small auxiliary tank has been provided and a two-way cork placed in a suitable position enables the driver to feed the engine on crude oil a few seconds after the start.

Good Range of Speeds

The Peugeot engine operating on crude oil is stated to have a good range of speeds. The speed variations are obtained by means of a mechanism which can be foot or hand operated. It acts on the fuel pump, regulating exactly the amount of oil to be introduced in the cylinder at the end of the compression stroke.

A great amount of work has been done in this country on the two-stroke cycle engine for use in automotive vehicles which is recognized as having great possibilities in the matter of fuel economies. Operating on gasoline, a high mileage is possible. Discussing this matter recently, Herbert Chase, automotive engineer, said:

"One promising method of obtaining higher torque at low speed is by use of a two-stroke cycle, which, by the way, is also one way of improving economy at part low, since the two-stroke cycle is inherently a constant compression cycle. While many engineers consider the two-stroke cycle as altogether out of the question for automotive engines, Edward C. Newcomb has been able to produce some extraordinary results with his type of engine.

"This car had a single cylinder engine which in a chassis about the size of a Ford chassis proved itself capable of traveling as much as 60 miles on a gallon of fuel without resort to coasting or other abnormal driving. A two-stroke

This ~ Boomerang comes home to roost ~

Buying any kind of equipment "on price" is bad business—buying some so-called "safety equipment" that way is downright disastrous.

Fortunately, there is no longer any need, or excuse, for not giving your wells the protection of time-tested equipment. BOVAIRD Grip CASING ELEVATORS are available everywhere for safe, sure, speedy service in running and pulling casing.

Designed to meet the more strenuous needs of present day drilling, BOVAIRD ELEVATORS easily outdo two to one, the antiquated equipment of yesterday still used by some operators. You get service "de luxe" from BOVAIRD Grip ELEVATORS!

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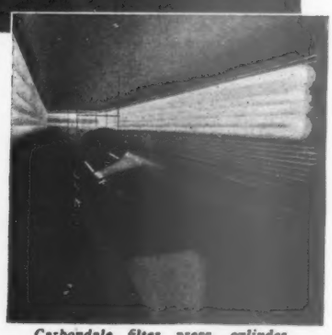
Carbondale Chilling Machines have been in service for over 35 years. Their design affords a continuous operation delivering a uniform homogeneous distillate ready for pressing. The crystalline condition renders easy separation of soft wax from the pressed oil.



Carbondale filter press, cylinder end, showing press charged.

Across America —non-stop

Lieut. Leigh Wade of around-the-world flight fame recently drove a Packard Straight Eight a distance of 3,695 miles across the continent, without draining the crank case. Pennzoil lubrication was selected because its value as a dependable lubricant has been proven repeatedly.

Carbondale Refrigerating Equipment was used in the process of refining Pennzoil. In bringing to perfection the inherent lubricating qualities of the crude oil and assuring an oil which never deviates in quality a dependable refrigerating system is essential.

For almost four decades Carbondale Refrigeration has given dependable service to refiners. Plants in operation for more than 30 years are still giving satisfactory service.

CARBONDALE MACHINE COMPANY
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Carbondale Refrigeration
CARMACO *for Refiners*

engine presents a number of problems but also has a number of advantages which should not escape consideration. Engines built on this cycle not only can be made highly efficient at part low but, if of comparatively high torque, at low speed, and have lower friction losses because of the low speed."

COMPLAINTS ON RATES BEFORE COMMISSION

By Charles E. Kern
Washington Bureau
The Oil and Gas Journal

WASHINGTON, D. C., May 8—A complaint has been filed by the Gypsy Oil Co. vs. the Osage Railway Co. and others, with the Interstate Commerce Commission attacking rates on pipe during 1924 and 1925 from Shidler, Okla., to Eureka, Winfield and Portland, Kans. The Gypsy Co. maintains a warehouse at Shidler for the distribution of oil well supplies and it has other warehouses and plants at Eureka, Winfield and Portland, Kans. These rates are complained of as unjust and unreasonable, being assessed on varying class bases, whereas the complainant asks for reasonable and nondiscriminatory commodity rates on wrought iron pipe and other oil well supplies between the points named. Reparation to the extent of $2,662.68 is asked.

The White Star Refining Co. of Detroit, Mich., has filed a complaint with the Interstate Commerce Commission against the Illinois Terminal and others. Complainant claims that rates of crude oil and casinghead gasoline from points in Oklahoma taking Group 3 rates under Boyd's ICC A-1166 to Wood River, Ill., where it is refined, blended, mixed, reshipped as various petroleum products to points in Michigan, Ohio, Indiana and Canada, are unreasonable. Complainant points especially to that factor of the rate, Wood River to Detroit on the basis of the local rates, which is regarded as unreasonable.

In the case of the Transcontinental Oil Co. vs. the Alabama and Vicksburg Railway Co. and others, the Interstate Commerce Commission has ordered that the Standard Oil Co. (Ky.) be permitted to intervene and be treated as a party to the cause. In this case the complainant alleges excessive and unreasonable rates on petroleum and products, including gas oil, fuel oil, crude oil, gasoline, etc., from Bristow and Boynton, Okla., to Alabama, Georgia, Florida, South Carolina, North Carolina, Kentucky, Tennessee, Virginia and West Virginia. Complainant asks for a cease and desist order and establishment of just and reasonable rates and reparation.

The Standard Oil Co. (Ky.), is also allowed to intervene in the case of the Roxana Petroleum Corp. vs. Cleveland, Cincinnati, Chicago and St. Louis Railway Co. and others.

D. C. RICHARDSON DIES; DISCOVERER OF CADDO

SHREVEPORT, La., May 8.—David Claud Richardson, 58 years old, pioneer operator in the north Louisiana oil fields and well known throughout the Mid-Continent, died at his home here Tuesday. He had been ill since March 17.

In the latter part of 1905 the first oil well between the Kansas and Texas Gulf Coast fields was begun near the old Annanias clubhouse on the shore of Caddo Lake, a short distance from what is now Oil City. Mr. Richardson, though engaged in the lumber business, was the first man to lease land for oil development in this territory and it was on his holdings that this well, "Savage Brothers No. 1 Richardson," was drilled. The Savage brothers were brought here by him to drill this well after he had become interested in oil prospects through results of showings made by a previous test in DeSoto Parish which was not a commercial success, and by geological reports on the Caddo district.

The Savage well was a gusher, completed early in 1906, and from then Mr. Richardson gave his attention to oil, abandoning his lumber connections. He was also one of the early operators in the Haynesville Field following its discovery in 1921. Meanwhile, he had wildcatted from Red River Parish north and from the Texas line east to the Monroe gas field. He was also active in south Arkansas, having drilled as far as Pine Bluff and all through the southwestern counties. He was early in El Dorado and in Smackover and also in Stephens.

He was a director of the Louisiana-Arkansas division of the Mid-Continent Oil & Gas Association; president of the Richardson Oil Co., with holdings in Caddo, and also president of S. M. Richardson & Co., having valuable holdings in El Dorado and Smackover.

RECORD POWER SHIPMENT

The world's record for a single two-load shipment of petroleum was recently established when the Standard Oil Co. towboat Sprague conveyed a shipment of 224,000 bbls. of oil in 19 barges on the Mississippi River at one time.

PETROLEUM SUPPLY AND DEMAND IN MARCH

Compiled by Charles E. Bowles from the latest revised figures of the U. S. Bureau of Mines

	Jan. 1926	Feb. 1926	Mar. 1926	Mar. 1925
Current Supply—				
Domestic crude oil	59,670,000	54,564,000	60,492,000	60,433,000
Imports, crude and refined	5,937,224	5,687,989	8,736,298	8,081,247
Total current supply	65,607,224	60,251,989	69,228,298	68,474,247
Demand—				
Domestic and export, crude and refined	66,402,100	59,889,819	69,280,688	62,026,389
Total change in crude and refined storage	* 794,876	362,170	* 52,390	7,899,329
Source of Change in Storage—				
1—Pipe line and tank farm	* 5,051,000	* 2,375,000	* 1,323,000	2,781,290
2—Crude oil at refineries	3,624,000	* 347,000	1,216,000	* 333,682
3—Foreign crude not at refineries	51,000	94,000	* 118,000	* 125,000
4—Refined products at refineries	601,124	2,990,170	172,610	5,576,721
Total change in storage	* 794,876	362,170	* 52,390	7,899,329
On a Daily Average Basis—				
The current supply was	2,116,362	2,151,857	2,233,171	2,208,847
The demand was	2,142,003	2,138,922	2,234,861	2,000,851
Average daily surplus or shortage	* 25,641	12,935	* 1,690	207,996
Total Crude and Refined in Storage—				
(a) Pipe line and tank farm:				
East of California	260,181,000	257,009,000	255,646,000	275,536,000
In California, light crude	44,215,000	44,877,000	43,996,000	43,422,000
In California, heavy crude and fuel oil	86,626,000	86,761,000	87,682,000	60,299,000
(b) Crude at refineries, east of California	30,781,000	30,434,000	31,650,000	32,612,497
(c) Freign crude not at refineries	438,000	532,000	414,000	399,000
Total crude stocks	422,241,000	419,613,000	419,388,000	412,268,497
(d) Refined products at refineries:				
Gasoline	41,643,405	45,206,167	46,103,238	41,599,986
Kerosene	6,848,047	6,857,000	6,997,786	10,858,666
Fuel oil, east of California	23,266,143	21,444,524	20,267,476	19,089,459
Lubricating oil	7,543,786	7,908,952	7,640,071	7,135,459
All other products	41,596,857	42,471,765	43,052,447	38,364,758
Total refined stocks	120,898,238	123,888,408	124,061,018	117,048,328
Grand total in storage	543,139,238	543,501,408	543,449,018	529,316,825

Please Note: Decreases are shown by * and **blackface type.** Increases are in lightface type.

EVENTUALLY
You Will Use Kerotests—
WHY NOT NOW?

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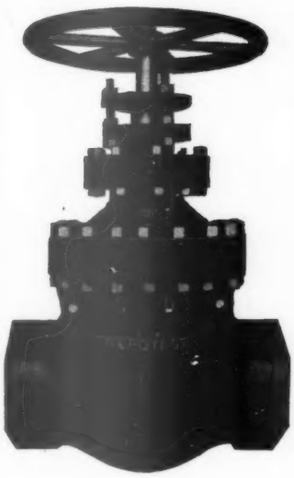
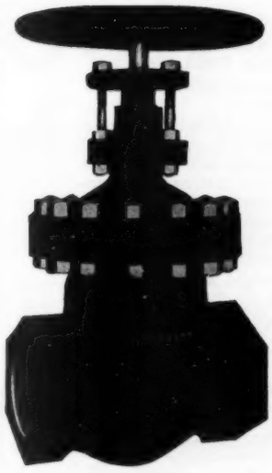


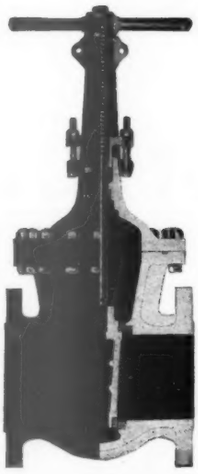


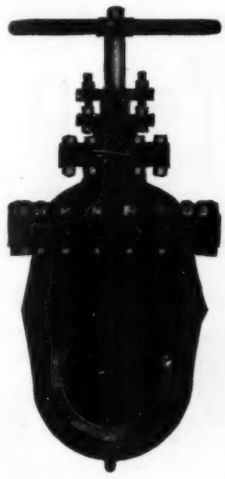
After you have spent thousands of dollars in bringing in your well—what class of product do you use for your Master Gate and Christmas Tree Valves? Do you specify the world's quality product for this service—or do you just use anything that might be at hand? Carelessness in this respect has cost many a well.

The Kerotest quality line of heavy duty valves and fittings was the first to win and hold the confidence of practical oil field operators throughout the world.

Many of the largest and best known operators in the Mid-Continent, California, Texas, Louisiana, Mexico, South America, Canada and many foreign fields—have proven to their satisfaction that it does not pay to take chances. They play absolutely safe and use—KEROTEST.

Why not you?





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Lightning Well Tools and Pumping Specialties

Wire Line Beam Hanger

Full adjustment of Mule Head.
Quick, detachable rope end.
All steel quick release grip.
Swivel self oiling steel yoke casting on beam.
This hanger may be used with or without the straight lift rope guides and is so priced.
Will handle a stroke 7 feet long.
Weight, 290 lbs.

Sucker Rod Rotator

The Lightning Rotator was designed to be used with Lightning Hanger, but may be used with almost any make of hanger. It is constructed almost entirely of steel and rotates on heavy duty ball bearing. Operates through a friction disk thereby eliminating danger of twisted rods. There are 100 teeth on ratchet so that a very small degree of turn may be made or as much as 1-16 of turn as desired. Perfect simplicity and dependability are to be found in the Lightning Rotator.

Weight, 180 pounds.

The Lightning V-Swing

Self Oiling

For heavy duty work. Weight 380 lbs.

V-Swing is adjustable so that legs may may be at 90° or closed to 45°.

Stuffing Box

Type T. S. Regular Pattern

The lightning T. S. Lubricator Stuffing Box satisfies under the most adverse conditions.

Rod and Casing Hook

All-Steel Polish Rod Grips

Lightning All-Steel Grip

Type C Grip

The most powerful all-purpose grip made. Operates like a wire line drilling clamp.

Weight 20 lbs.

Manufacturers of

Pumping Powers
Gears, and Band Wheel
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Toggle Grips
V-Swings, Jacks
Polished Rod Rotators
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LIGHTNING
OIL FIELD SUPPLIES
PUMPING POWERS, JACKS, STUFFING BOXES, ETC.

MID-CONTINENT REFINERY RUNS SHOW INCREASE

(Continued from Page 33)

Mid-Continent Petroleum Co. (Cosden), West Tulsa	35,000	26,000	26,000
*Miller Brothers 101 Ranch, Marland	100	50	50
Newkirk Oil & Refining Co., Newkirk	2,000	Shut down	Shut down
Nyanza Refining Co., Wilson	3,500	Shut down	Shut down
Oil State Refining Co., Enid	2,000	Shut down	Shut down
Okla.-Tex. Refining Co. (Sagamore), Grandfield	2,000	Shut down	Shut down
Peppers Gasoline Co., Covington	1,000	750	750
Pierce Oil Corp., Sand Springs	10,000	7,000	6,500
Pontotoc Pipe Line & Refining Co., Allen	1,500	250	100
Producers & Refiners Corp., West Tulsa	7,000	2,800	4,000
Producers & Refiners Corp., Blackwell	4,000	Shut down	Shut down
Pure Oil Co., Ardmore	6,500	2,160	2,000
Pure Oil Co., Cushing	5,000	Shut down	Shut down
Pure Oil Co., Muskogee (O. P. & R. Co.)	2,500	2,000	2,000
Red Seal Refining Co., Oklahoma City	2,500	Shut down	Shut down
Riley Petroleum Co., Bristow	800	500	500
Rock Island Refining & Pipe Line Co., Duncan	2,500	2,250	2,250
Roland Oil Co., Bristow	1,500	1,050	900
Sayre Oil & Refining Co., Sayre	500	100	100
Shaffer Oil & Refining Co., Cushing	10,000	10,000	10,000
Sun Oil Co., Yale	3,000	2,500	2,500
Sinclair Refining Co., Cushing	6,000	Shut down	Shut down
Sinclair Refining Co., Muskogee	1,000	1,000	1,000
The Texas Company, West Tulsa	11,000	10,800	10,000
Texas Pacific Coal & Oil Co., Wynnewood	2,500	1,850	1,600
Tidal Refining Co., Drumright	8,000	8,000	7,000
Transcontinental Oil Co., Boynton	2,500	2,000	2,000
Transcontinental Oil Co., Bristow	6,000	3,800	3,500
Tonkawa Petroleum Co., Tonkawa	2,500	1,000	900
Western Oil Corp., Beckett	1,500	1,000	1,000
Yale Oil Corp., Yale	1,500	600	500
Total	178,200	172,445	162,530

*Average daily runs lower.

REFINING OPERATIONS IN KANSAS

(Plants which have been in operation during the past year.)

Name and location—	Daily Capacity	Runs May 1	Runs April 1
Arkansas City Refining Co., Arkansas City	3,000	1,500	1,500
Barnsdall Refineries, Inc. (Waite Phillips), Wichita	5,000	3,000	Rerun
Commonwealth Oil & Refining Co., Moran	1,800	Shut down	Shut down
Derby Oil & Refining Co., Wichita	5,000	2,500	3,200
El Dorado Refining Co., El Dorado	3,500	2,500	2,500
Golden Rule Refining Co., Wichita	1,000	500	500
Grant Oil Co., Augusta	1,500	Shut down	Shut down
Kanotex Refining Co., Arkansas City	9,000	6,500	6,800
Manhattan Oil Co. (K. C. Ref. Co.), Kansas City	5,000	4,500	3,500
Miller Petroleum Co., Humboldt	2,000	Shut down	Shut down
National Refining Co., Coffeyville	6,000	6,400	6,000
Peerless Oil Refining Co., Chanute	3,000	2,000	2,000
Red Bird Refining Co., Fredonia	200	Shut down	Shut down
Roxana Petroleum Corp., Arkansas City	19,500	11,000	9,850
Russell County Pipe Line Co. (West Kans. Refg. Co.), Russell	2,500	800	625
Sinclair Refining Co., Coffeyville	6,500	6,500	6,500
Sinclair Refining Co., Argentine	5,000	4,000	4,000
Skelly Oil Co., El Dorado	14,000	9,200	8,400
Standard Oil Co. of Kansas, Neodesha	12,000	9,000	9,000
United Oil & Refining Co., Hutchinson	2,500	Shut down	Shut down
Vickers Petroleum Co., Potwin	3,500	2,400	2,100
White Eagle Oil & Refining Co., Augusta	6,500	5,000	5,000
West Missouri Group—			
Wilhoit Refining Co., Joplin	2,000	1,000	1,200
Total	130,900	78,300	72,675

REFINING OPERATIONS IN NORTH CENTRAL TEXAS

(Plants which have been in operation during the past year.)

Name and location—	Daily Capacity	Runs May 1	Runs April 1
Amarillo Refining Co., Amarillo	5,000	3,500	3,000
American Refining Co., Wichita Falls	7,000	4,700	4,500
Big Four Refining Co., Panhandle	1,500	850	850
Bridgeport Refining Co., Bridgeport	1,000	Shut down	Shut down
Buffalo Refining Co., Sherman	500	Shut down	150
Col. Tex. Refining Co., Colorado	5,000	4,000	4,000
Crystal Petroleum Co., Burkburnett	1,000	250	250
Dale Oil & Refining Co., Electra	3,000	Shut down	Shut down
De Leon Refining & Pipe Line Co., De Leon	1,500	Shut down	Shut down
Falls Refining Co., Wichita Falls	1,500	1,400	1,100
Four States Refining Co., Texarkana	750	Shut down	Shut down
Gulf Refining Co., Fort Worth	15,000	6,500	6,500
Hagaman Refining Co., Tiffin	2,000	275	250
Humble Oil & Refining Co., Burkburnett	4,000	1,900	2,300
Humble Oil & Refining Co., Hearne	10,000	Shut down	Shut down
Iowa Park Producing & Refining Co., Iowa Park	2,500	1,500	1,500
Kent-Middleton Refining Co., Corsicana	2,500	1,300	1,100
Magnolia Petroleum Co., Fort Worth	12,000	6,700	6,700
Magnolia Petroleum Co., Corsicana	10,000	3,000	3,000
Megargel Refining Co., Megargel	2,000	600	300
Mexia Oil & Refining Co., Mexia	600	Shut down	Shut down
Miller Petroleum Co., Wichita Falls	3,000	1,950	2,000
National Refining Co., Texas, Greenville	2,000	Shut down	Shut down
Noble Oil & Gas Co., Burkburnett	5,000	2,600	2,600
Olney Oil & Refining Co., Olney	1,200	1,000	1,000
Oriental Refining Co., Dallas	6,000	350	250
Oriental Refining Co. (Trinity), Dallas	5,000	2,800	2,800
Orient Petroleum Co., Wichita Falls	2,000	1,000	1,200
Panhandle Refining Co., Wichita Falls	4,000	2,200	2,100
Paris Refining Co., Paris	250	250	Shut down
Peerless Refining Co., Wortham	400	Shut down	Shut down
The Petroleum Corp., Electra	2,000	Shut down	Shut down
Primrose Refining Co., Wichita Falls	1,500	1,130	Shut down
Producers Refining Co., Gainesville	5,000	4,000	4,000
Simms Oil Co. (Clayton), Dallas	4,500	4,000	4,000
Star Refining & Producing Co., Fort Worth	1,500	Shut down	Shut down
Sunshine Consolidated Oil Co., Wichita Falls	2,500	Shut down	Shut down
Sweetwater Refining Co., Sweetwater	500	Shut down	Shut down
Tidal Western Refining Co., Burkburnett	3,000	2,500	2,500
The Texas Company, Dallas	15,000	10,000	10,000
Texhoma Oil & Refining Co., Wichita Falls	7,000	4,600	4,500
Tiger Refining Co., Breckenridge	1,500	Shut down	Shut down
Transcontinental Oil Co., Fort Worth	5,000	1,700	2,000
Waggoner Refining Co., Electra	3,400	2,500	2,700
White Eagle Oil & Refining Co., Fort Worth	5,000	2,500	4,000
Wilson Brothers Refining Co., Wichita Falls	2,500	500	Rerun
Total	177,100	82,155	81,150

REFINING OPERATIONS IN NORTH LOUISIANA

(Plants which have been in operation during the past year.)

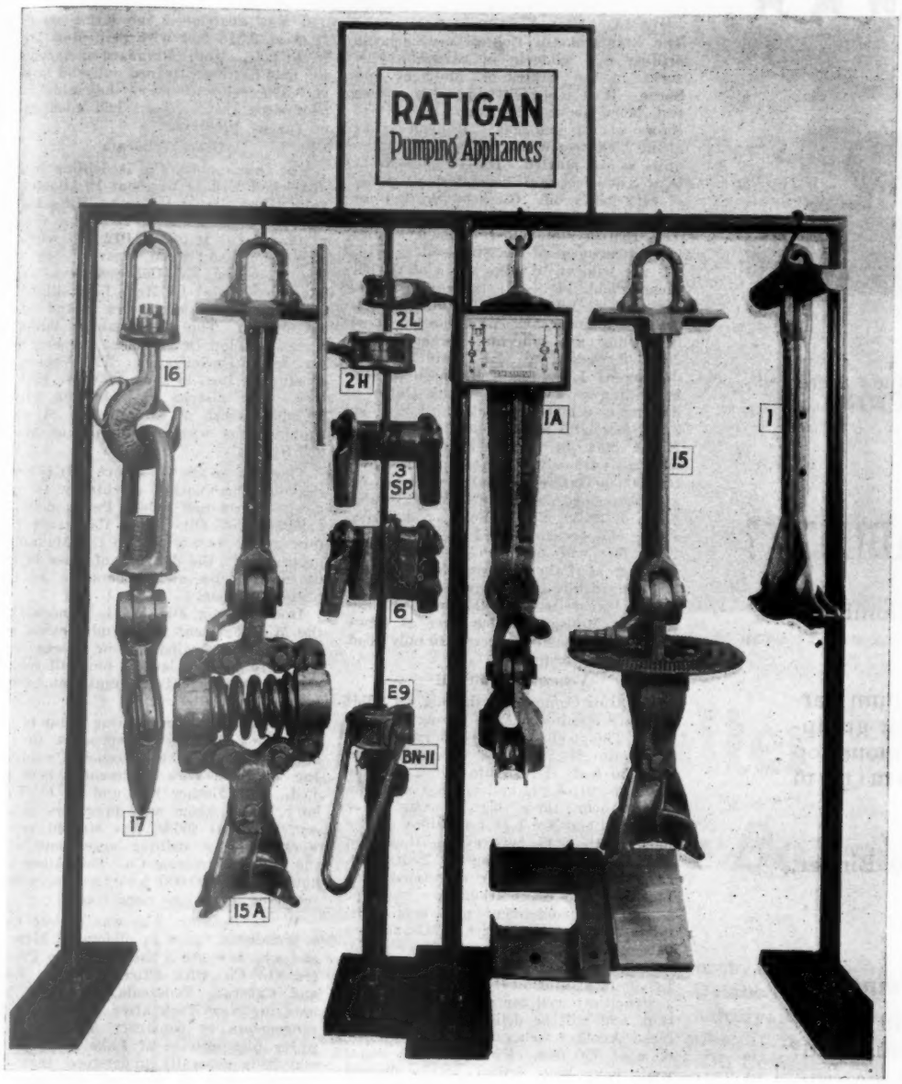
Name and location—	Daily Capacity	Runs May 1	Runs April 1
Crystal Oil Ref. Corp. (Caddo Central), Shreveport	3,500	3,500	3,500
Crystal Oil Ref. Corp. (Caddo Central), Shreveport	5,000	5,000	5,000
Great Southern Refining Co., Ardis	2,000	Shut down	Shut down
Louisiana Oil Refining Corp., Shreveport and Bossier	19,000	18,800	14,500
Shreveport Producing & Refining Co., Shreveport	5,500	4,500	4,000
*The Texas Company, Ardis	7,000	6,000	6,500
Total	41,500	37,800	33,500

*Topping.

REFINING OPERATIONS IN ARKANSAS

(Plants which have been in operation during the past year.)

Name and location—	Daily Capacity	Runs May 1	Runs April 1
Cross Refining Co., Smackover	3,500	3,500	3,000
Home Refining Co., Camden	500	75	75
Home Oil & Refining Co., Hot Springs	600	50	50
Houston Oil Co., Camden	5,000	3,000	2,100
Kettle Creek Refining Co., Pearson	4,000	3,000	3,000
Lion Oil & Refining Co., El Dorado	10,000	7,000	7,000
McMillan, Fehlman & Oliver, El Dorado	1,500	830	600
Ouachita Valley Refining Co., El Dorado	1,500	700	800
Root Refineries, El Dorado	2,500	2,500	1,980
Total	31,000	20,655	18,455



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VENEZUELA FIELDS NOW PRODUCING MORE THAN 102,000 BARRELS DAILY

By Alfred F. Smith

MARACAIBO, Venezuela, April 23.—The Standard Oil Co. of Venezuela is drilling five wildcats in eastern Venezuela, in the States of Monagas and Sucre. Its Cachicamo is proving a deep test, being about 5,000 feet with several shows of oil and gas. Randon is at about 2,500 feet with small shows. Quiriquiri is just started. Its Guanoco No. 1 is at 2,500 feet with several small shows of very heavy oil. Guanoco No. 2 is at about 1,000 feet with no shows reported. The British Controlled Oilfields, under the management of the Standard, is drilling one wildcat 10 miles south of the El Mene Field. It is at present standing cemented at 1,940 feet. In the Buchivacoa district near Dabajuro, the Standard is drilling five wildcats. Monte Claro No. 2 is rigging up. La Danta No. 2 is drilling at 1,700 feet. Bisantote No. 1 is drilling at 2,000 feet. Agua Dulce is drilling at 1,200 feet and Agua Viva at 3,200 feet with small shows. La Danta No. 1 blew in December 10 last year with gas variously estimated at 10,000,000 to 100,000,000 feet. Hole was wrecked and abandoned. In the district of Perija, State of Zulia, Parcel Pebiy, Standard's Buena Esperanza No. 1 is drilling at 2,880 feet without much encouragement. Its test at Palmerejo on the shore of Lake Maracaibo, was abandoned at 4,010 feet. Its wells near Maturin in the State of Monagas, which have at times been reported as producers, are only good shows being tested.

Venezuela Gulf Oil

The Gulf Company is drilling six wildcats. El Menito No. 2 is fishing at 2,000 feet. This well is located northwest of El Menito No. 1 which was abandoned at 3,056 feet. El Menito No. 2 has the usual shows of gas and oil that all wells drilled near these big seepages have shown. Lago No. 1 at Lagunillas on the shore of the lake between La Rosa and San Lorenzo, is drilling at 2,810 feet. Lago No. 1 has so far correlated with La Rosa and expectations are high for a well and consequent new field. Miranda No. 1 in the district of Miranda, on parcel Malt south of the El Mene Field, is rigging up. Lenan No. 1 on parcel Lenan is drilling at 1,518 feet. This is a structural well for geological information, and will be drilled to about 1,000 feet. Another structural well, Mara No. 6, is at 350 feet. Five other structural wells have been drilled in the district of Mara to depths averaging 1,500 feet. Portable rotary has been used and the information obtained has apparently been worth the effort. Geneva No. 1 is located on the shore of the lake 5 miles north of Maracaibo and is now at 1,680 feet with no shows so far. This is a highly interesting test as a well here would not only open a new field, but would also bring in production capable of nearly immediate transportation.

Standard Oil of California

This company, drilling under two corporate names, is a welcomed newcomer in the field. If its usual policy of drilling as far as it can go is adhered to much needed deep tests are assured. Under its Richmond Petroleum of Venezuela it is drilling four wells. El Mamon, in the district of Democracia in the State of Falcon is drilling at 900 feet; this will be a deep test. Lango No. 1 in the district of Urdaneta on Larain 3 was drilled to 1,400 feet for geological information. Lance No. 1 in the district of Urdaneta spudded on April 4; this is another structural well that will go to 1,000 or 1,200 feet. La Novedad No. 1 in the district of Perija on the Condor Oil property is drilling at 830 feet. This is still another structural well. Under the Californian Petroleum Exploration Co. (the old New England Oil holdings) two wells are being drilled. Neopig No. 1 in the district of Perija on Neelpig parcel is drilling at 3,530 feet as a deep test. Neogil No. 1 was started by the New England Oil in the early part of 1923 and was abandoned the latter part of 1924 at 2,816 feet with drill stem stuck in the hole. Under Standard management the hole has been cleaned out, and is now at 3,510 feet with every indication of a good deep test. Neogil had good show of gas at 1,900 feet.

Other Wildcats

The Omnium Oil Co. is drilling in the district of Urdanetta about 19 kilometers from Maracaibo at Lasama. Miles Doyle of the Sullivan Diamond Drill is in charge of the work. It is at 2,012 feet with no shows but very good recovery of core. The Venezuela Oil Concessions is drilling two wells at El Mene Lagunillas, located about 15 kilometers inland from Lagunillas. The Caribbean is building a rig on Colon Development property not far from Encontradas. The Venezuela Producers, Inc., is down 800 feet with a test in the district of Urdanetta, about 10 miles south of Concepsion. A good show of gas was encountered at about 600 feet.

The Orinoco Oil Co. (Pure Oil) is hauling out combination machinery to put down a deep test in the Perija district.

The Union Oil Co. of California has four geologists working on the Maxudian properties in the districts of Paez in the State of Zulia and Federacion in the State of Falcon.

Homer Craig and W. L. Simpson of the Mid-Continent fields and Mexico, arrived in Maracaibo a few weeks ago. They are now in Caracas but will return shortly to engage in general contracting in the Maracaibo region.

An exceedingly interesting event is the arrival of the first independent in the Maricoba fields. The Venezuela Producers Inc. of New York represented here by J. L. Hill, Luther Hill and H. C. Tuxbury, all of whom were operators in the central Texas fields, has started active work under a drilling agreement with the Misoa Petroleum Co. The Misoa Co. holds about 100,000 hectares, widely scattered in various sized tracts.

W. L. Buckley, who was at one time a prominent figure in oildom of Mexico, and who now heads the Venezuela Pantepec Oil Co. with offices in New York and Caracas, Venezeula, has just left here for New York after completing arrangements to construct a large deep water pier outside of Lake Maracaibo; and it is generally understood that the Pantepec will do some oil development. It is also rumored the Standard Oil Co. of Indiana is on a deal for several of the Buckley concessions.

Homer Craig and A. F. Simson, two of the best known oil men and contractors of Mexico, are here and have stated their intentions to move in and do contract drilling.

Jack Burden of the firm of Sheldon and Burden, one of the largest drilling contractors of the States and Mexico, has left here for New York; and is expected back in a few months, to start contracting on a large scale.

M. B. Stanton of Dallas, Tex., who arrived about a month ago to take charge of drilling operations for the Venezuelan Sun Co., has resumed his duties after being confined to his room for two weeks with fever.

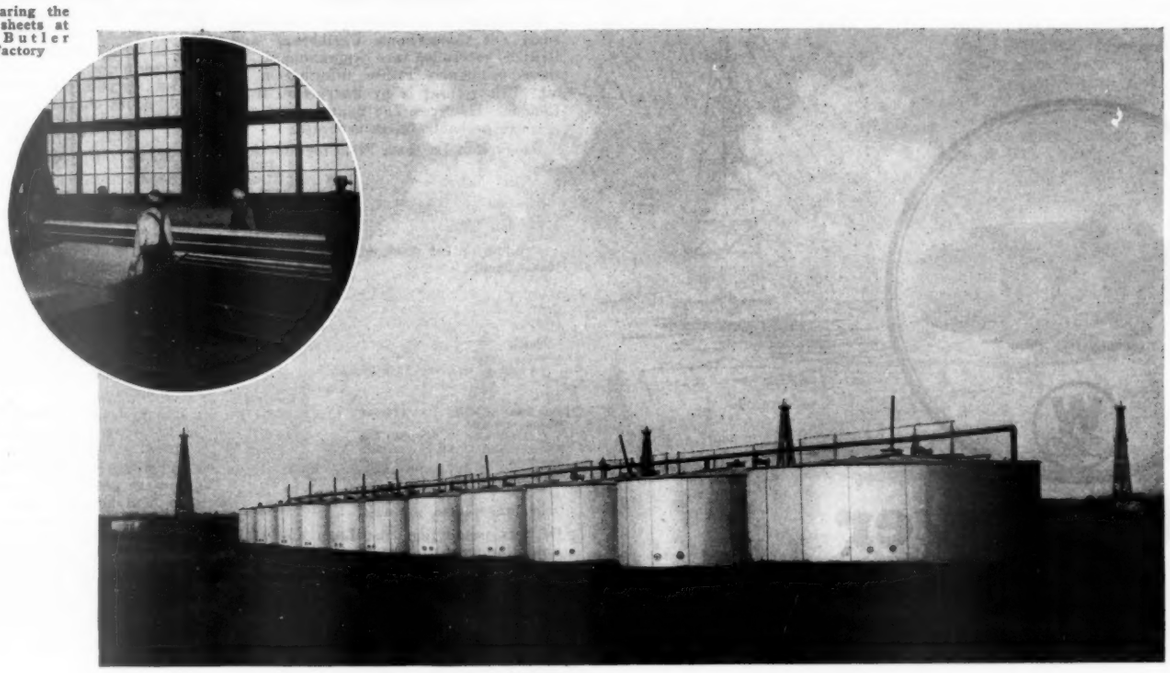
Harper McKee of Brokaw, Dixon, Garner and McKee, arrived in Maracaibo April 6 to examine Maxudian properties. Mr. Dixon and Mr. Garner are in Caracas.

D. E. Park, the last representative of The Texas Company in Venezuela, is leaving at once for the States. The Texas Company is still holding its lands but has withdrawn from all active work.

The New England Oil, which still retains one lease of 480 hectares on Rio Pauji, is drilling at 1,510 feet on its fourth test. Its No. 2 is producng 28 bbls.

The V. O. C. is drilling at Sibucara, about 8 kilometers west of Maricoba. It

Preparing the big sheets at the Butler Factory



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got a good show of oil at 510 feet, and is now cemented.

Production Figures

All figures on production for the Venezuela Oil Concessions, Caribbean, and British controlled are approximate, as these companies refuse information to all. This refusal is by instruction from London. However, the figures given below are probably fairly accurate.

Production La Rosa Field for March:

	Bbls.
V. O. C.	875,000
Lago	499,600
Gulf	521,000
Total	1,895,600

Production for week ending April 2, La Rosa Field:

	Bbls.
V. O. C.	206,500
Gulf	140,600
Lago	126,500
Total	*473,600

*Average gravity 23.4 Baume.

		Average Gravity Baume
La Rosa Field	473,600	23.4
Mene Grande Caribbean	154,000	19.
Concepcion V. O. C.	24,500	38-40
La Paz V. O. C.	10,500	18.
El Mene B. C. O.	52,000	34.
	714,600	

Or 102,000 bbls. per day.

Of this production, the Lago and Gulf are shipping all to the States. The Lago up to recently was shipping half its production to England but that contract has now expired. The Dutch-Shell companies are shipping to Curacao, where about 10,000 bbls. daily are being run through the refinery, a considerable amount sold as fuel to ships, but the great bulk transhipped to Europe.

Production is now about at the carrying capacity of lake transportation. All the producing companies are erecting tank storage both at the fields and their terminals. Two new lake tankers have just arrived for the Caribbean and two each for the Lago and the Gulf are expected shortly.

The Gulf and the Lago, with the new proven territory at Ambrosio, may be expected to show continued increase in production. The Dutch-Shell companies can at any time increase their output to really big production. Predictions as to Venezuelan production are dependent on tonnage to transport the oil from the lake, however, it is pretty safe to say that Venezuela will produce 150,000 bbls. daily before next fall.

Venezuela Gulf Oil Co.'s No. 24 La Rosa, one-half mile out in Lake Maracaibo, while being swabbed in caught fire when a native helper near the flow box attempted to light a cigar. He was soon enveloped in flames, and with three other native helpers perished. The American driller escaped by diving into the water. The fire was soon extinguished, and the well is estimated to be making 1,500 bbls. of oil.

4,000-Foot Test For Oil, West of Miami, Is Promised By Floridans

MIAMI, Fla., May 8.—A deep test well to 4,000 feet will be spudded in within 30 days at a point 40 miles due west of Miami in Dade County, according to an announcement by officials of the newly organized Florida corporation, the Miami Oil & Natural Gas Co.

The full cost of the well was subscribed by 27 leading business men of Miami and the necessary funds are now said to be on deposit in the Bank of Bay Biscayne for the completion of this test.

The stock was fully subscribed and paid in by the following well known Miamians and firms: B. B. Tatum of Tatum Brothers, Lee-Brooks-Weede Co., J. L. Holmberg, Capt. J. F. Jaudon, Chevelier Corp., Tom J. Peters, E. C. Gaunt, Integrity Realty Co., Lester B. Manley, president of the Miami Realty Board, John E. Withers, the Tamiami-Everglades Corp., Horobin & Cameron Co., John J. Quinn, J. B. Harris, William E. Martin, T. B. Rafter, P. H. Gobie, C. Gibson Ford, Dr. John R. Pearson, A. B. James, Neil Scroggins, P. E. Tichenor, M. J. Michael, B. H. Edwards, Earl Irons, Irons Land & Development Co., C. I. Brooks, T. H. Horobin and D. I. Cameron.

The corporation was formed with Capt. J. F. Jaudon, president, D. Aldridge, secretary-treasurer, and C. I. Brooks, J. L. Holmberg, Neil Scroggins and P. E. Tichenor, directors.

The drilling contract was let to Neil Scroggins of El Dorado, Ark., a veteran contractor who has been operating in Texas, Louisiana and Arkansas. Mr. Scroggins stated that a heavy California rotary rig with two 60-horse power boilers would be shipped into Miami within two weeks. This outfit is capable of drilling to 5,000 feet if necessary.

Operations will be in charge of P. E. Tichenor, of Evansville, Ind. He is an operator and producer from the southern Indiana fields.

Mr. Tichenor states that he will cooperate with the state geological survey and that full information concerning the daily progress and finding will be given out to the public. All cuttings and cores taken will be thoroughly examined by a paleontologist for determination.

The geological work in the selection of this acreage for test, was made by Virgil Smith, of Smith & Moffat, Indianapolis, and William P. Rawles of the Indiana state geological department. Besides covering a local doming situation, the acreage lies over the mean axis of peninsular Florida.

Contracted to this depth, the Tichenor well will be the deepest thus far attempted in peninsular Florida. Previous wells in Sumter, Polk and Hillsborough counties never reached 3,300 feet. Carl Fisher's well drilling to 1,500 feet over on Miami Beach is the deepest in the Miami territory. It was completed as a water well although drilled in the hope of finding oil.

DEVELOPMENT IN CENTRAL OHIO, ASHLAND BEST

(Continued from Page 66)

east line of the J. L. Yarner 158 acres, Section 3. Ohio Fuel Supply Co. made a location for a test in the southwest corner of the Elijah Dunlavey 30 acres, Section 5, and C. W. Nuzum is drilling his second test in the northwest corner of the Edward Burke 80 acres, Section 24. In Troy Township, same county, Bowser and others' test, 400 feet from the north line and 760 feet from the west line of the H. T. Richardson 70 acres, Section 36, is a fair gas well in the Keener sand.

Klise-Eckstein-McCann Co. is drilling a test in the northeast corner of the Marion G. Wright 200 acres, Section 21, Perry Township, Coshocton County. In Newcastle Township, Cassingham & Bell Brothers' No. 11 on the Cassingham, Section 11, is a very light gasser.

Guernsey County is rapidly becoming one of the active spots in the Central Ohio area. In Adams Township, the Ohio Oil Co. has a light gas well at a second test on the Frank Anthrum, Section 15, while the Logan Gas Co. copped a very good gas producer in No. 3 Seward R. Williams, Section 13. Ohio Oil Co. made a location for a test on the Finley Keith farm. Ohio Fuel Gas Co. is starting a test on the Lola Shruer and on the J. C. Ankrum farms, and made a location for No. 1 on the G. C. Smith.

The Preston Oil Co. drilled in an average gas well at a test in the southwest corner of the F. A. Weston 10 acres, Lot 48, Dover Township, Cuyahoga County, after giving a shot of 20 quarts. Mulford Portmann made a location for a test in the northeast corner of the W. H. Reeves 2 acres, Lot 28. Arthur & Simpson staked a location 200 feet from the north line and 1,340 feet from the west line of the W. Glasgow 30 acres, same lot, also for No. 1 well, 175 feet from the north line and 845 feet from the west line of the C. and C. M. Miller 27 acres, Lot 28.

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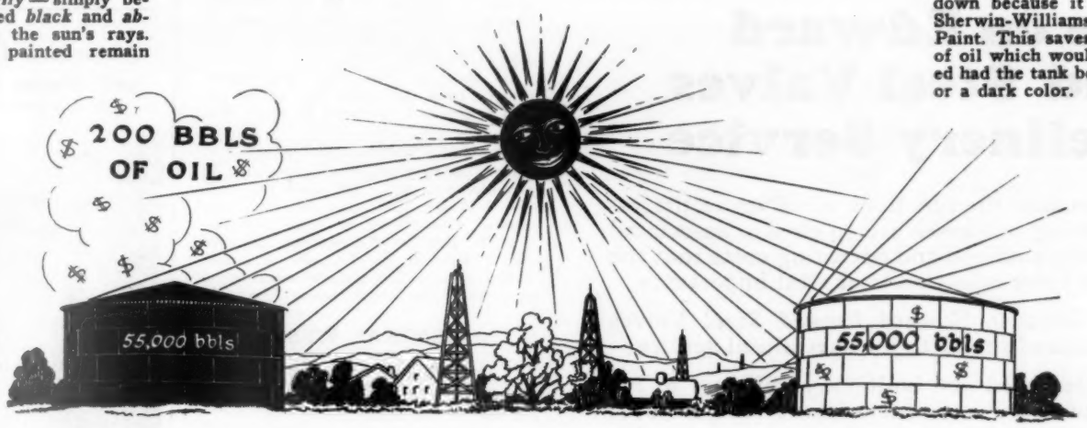

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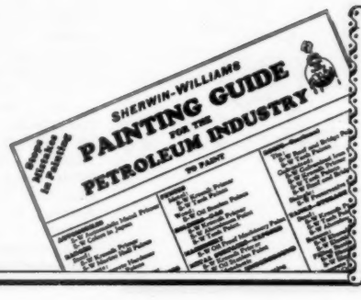

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414 Canal Road, Cleveland, Ohio.

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First—Because the functions of valves in the various refining processes are so closely associated with results obtained and operating costs that the matter of valve selection is of vital importance.

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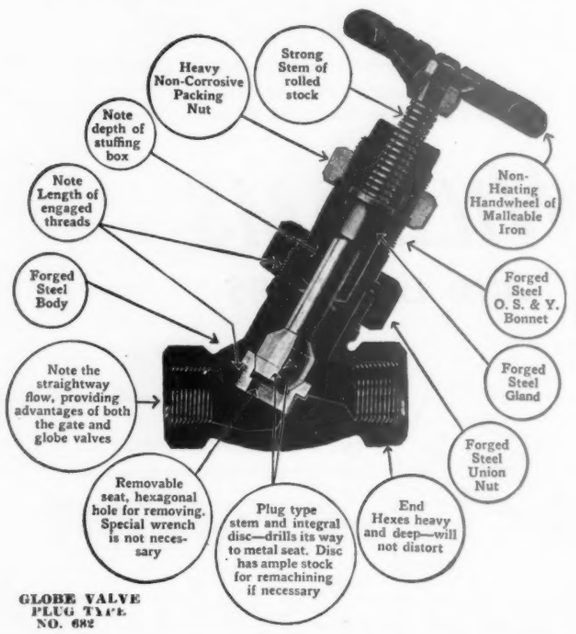
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Note depth of stuffing box
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Note the straightway flow, providing advantages of both the gate and globe valves
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Removable seat, hexagonal hole for removing. Special wrench is not necessary
Plug type stem and integral disc—drills its way to metal seat. Disc has ample stock for remachining if necessary
End Hexes heavy and deep—will not distort

GLOBE VALVE
PLUG TYPE
NO. 682

ship, Washington County, the Preston Oil Co.'s No. 6 C. C. Pugh has been completed and estimated at 10 bbls. under pump. In Lot 1,080, Palmer Township, same county, the J. C. Dinsmore estate drilled a duster in No. 28 well, 600 feet from the north line and 705 feet from the east line of the O. W. Cody, and it was dry in the Keener sand.

In Dunham Township, Washington County, Dent and others have a light gas well in a test on the Susie M. Zimm, Lot 677.

In Barlow Township, Washington County, Barnett and others' No. 5 H. W. Greenlee was dry. The Pure Oil Co.'s No. 2 Robert Hays, Lot 754, is a fair gasser. The Muskingum Gas Co.'s No. 1 G. W. Bell, Lot 757, is a fine gas well. No. 1 Mary Smith, Lot 688, is a fair gasser, while a lighter gas well was found in a test on the Ford & Dening, Lot 1,030.

CENTRAL WEST

(Continued from Page 60)

well was found at 1,241 feet and drilled 42 feet in the sand.

In Orange Township, Hancock County, the Ohio Oil Co.'s No. 24 well, 600 feet from the south and west lines of the Asa Stratton farm, Section 8, proved a duster. Sand was topped at 1,308 feet and drilled to a total depth of 1,408 feet, or 100 feet in the sand. In Union Township, same county, N. E. Bryson's No. 16, 800 feet from the north line and 1,000 feet from the west line of the W. S. King farm, Section 26, pumped 2 bbls. Sand was found at 1,305 feet and drilled 100 feet in the sand.

In McDonel Township, Hardin County, the Boston-Southwestern Oil & Gas Co.'s second well in the southwest corner of the Polly McConnell farm, pumped 12 bbls. with sand topped at 1,448 feet and 41 feet in the sand.

In Cynthian Township, Shelby County, Slagel & Johnston's test in the southwest corner of the J. Eilerman, in the SW of Section 14, proved a duster at a total depth of 1,319 feet, or 52 feet in the sand. The Wittmer property trustee's test in the northeast corner of the J. Sherman farm, in the northwest quarter of Section 14, is good for 3 bbls., at a depth of 1,353 feet, or 41 feet in the sand. The Mansfield Oil & Gas Co.'s No. 9, in the northwest corner of the Charles F. Broerman farm, Section 35, pumped 1 bbl. at 1,295 feet, or 50 feet in the sand.

Indiana

Completions are few in the Indiana Field, either in the old Trenton Rock area or the Princeton district, in the southwestern portion of the State. Advice from Daviess County, in the Princeton area, is that work is being started to some extent southwest of Washington, in Veale Township, and with better weather conditions at hand a number of new wells are to be started. In Section 21 of this township, Sargent, Hartman and others completed the cleaning out of No. 4, on the Gaither farm, showing around 30 bbls., which is large enough to attract attention of operators, as the oil is found above the 1,000-foot level. This area is to the southwest of the town of Washington, the county seat, and further advice is that much leasing has recently been done to the east of Washington, and that a number of test wells are being planned. In this part of Indiana, production is found in pools, it being a hilly rough section, the oil being of good quality. No reports have been made of the wildcat well of Wheeler and others on the William Meissner farm, Section 11, Cass Township, Dubois County, since it was given a shot. Oil was found in the hole but the quantity does not appear to have caused any further excitement. Another test in that part of the Hoosier State being made by the Turner Oil & Gas Co., on the Vock & Folson land, Section 17, Pidgeon Township, Warrick County, is not reported completed. The high waters and muddy highways have hampered development work.

A showing of oil was found by the

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Automatic Lubricator and Steam Separator
U. S. Patent No. 1549938

Standard Oil Co., Huntington Beach

CUT YOUR DRILLING COST

It more than saves its cost on a single well and costs nothing for maintenance. That's why the big companies use it—in California, Japan, Rumania, Russia, Venezuela.

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The dry steam is lubricated automatically, the oil supply being controlled by the difference in steam pressure between inlet and outlet. The oil feed varies according to load. When engine stops, pressure equalizes at inlet and outlet and stops lubrication, reducing oil consumption fifty per cent or more.

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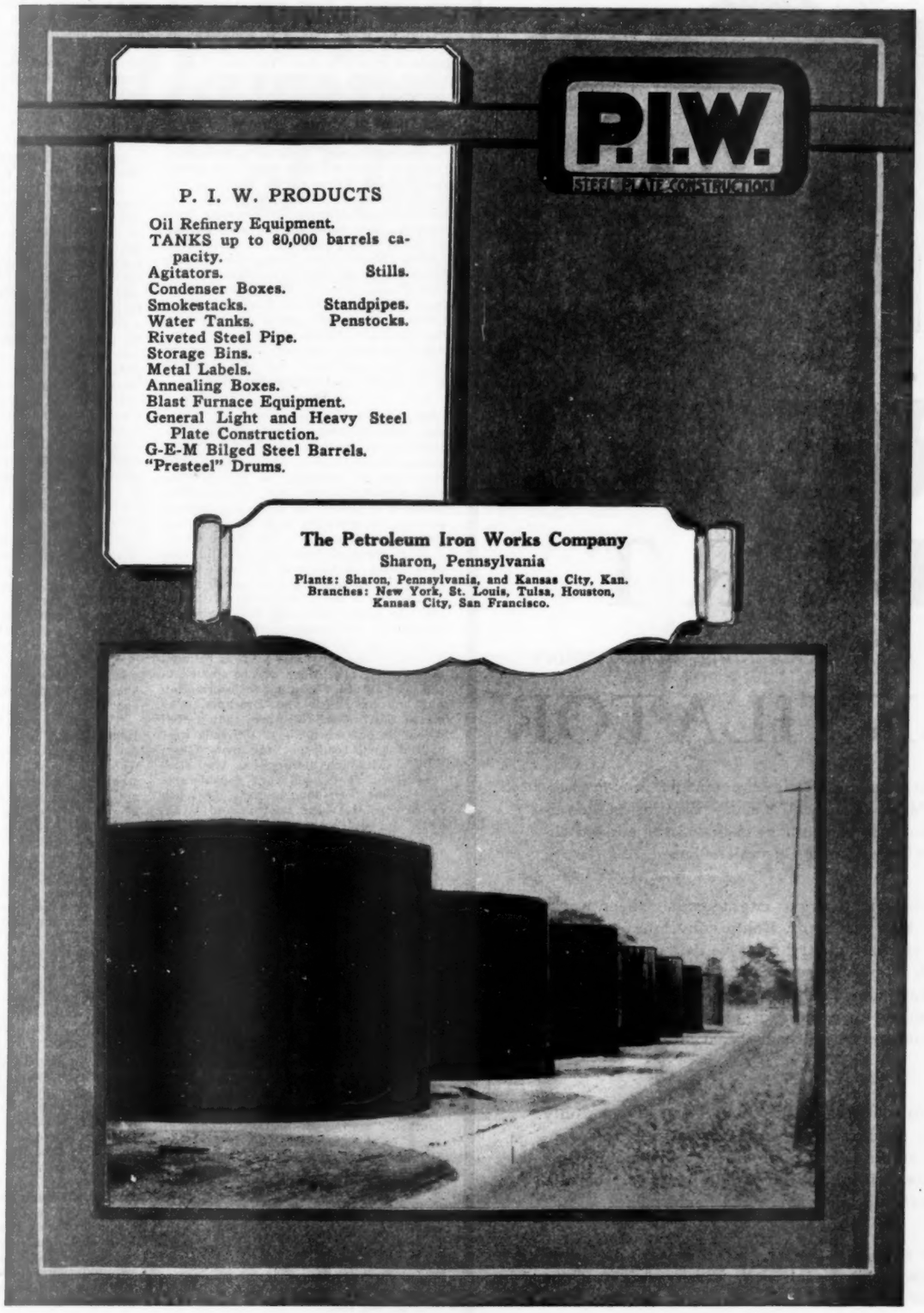

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Eastern Gulf Oil Co. on the P. Steckler farm, near Little Rock in Decker Township, Knox County. The drill got its oil showing at 2 feet in a sand encountered 500 feet below the Allendale, Illinois, bearing sands, 2 miles west of the Steckler test. This is one of five wells that are drilling in lower Knox County at present in an attempt to open up that territory. What this well will make is unknown, but preparations are being made to give it a shot. The sand formation in which the showing of oil was discovered, is the Kirkwood sand, which has in the past proved a good producer with staying production in the Bridgeport Field, of Lawrence County, Illinois, to the northwest. This is a formation that has really not been tested out across the Wabash River to the north of the Steckler tests, in Wabash Township, Wabash County, Illinois. No reports have recently been made on the well drilling by the Russell Producing Co. on the Ballentine 515-acre farm, across the Wabash River from the good production in Wabash County, Illinois. The Ballentine well is in Section 21, Decker Township, Knox County. This well passed through both the Biehl and Jordan sands found in the Allendale Field, but only slight showings of oil were noticeable and will eventually be drilled for a deeper pay sand.

Illinois

With operations going forward across the Wabash River from the Allendale Field, of Wabash County, in the Decker area of Knox County, Indiana, where oil was reported showing in the Steckler well, should this well prove a commercial producer it means the drilling of a large number of wells on both sides of this stream and down along the White River.

It is reported from Albion, Ill., that Sam Helck of Grayville has secured leases for unknown parties on 25 tracts of land to the northwest of Grayville and that the leases have been filed for record in Albion, the county seat of Edwards County. In this connection the Register-Journal of that city says: "It is believed that drilling operations will be started in the near future, according to information put out by Helck and Brechner, who stated the first of the week, that a well would be put down about 150 rods west of the hard road, not far from Grayville." Although nothing has been filed for record, it is said that considerable leasing has been done in territory south of Browns, between Browns and Grayville and southeast of Albion, also in Edwards County and along the western line of Wabash County, where the Siegert well was drilled some time ago. Although the well was reported a dry hole there are those who contend that traces of oil were found and that the structure lies to the north toward the town of Browns.

T. H. Puryear has secured a lease on the Clay Mueller farm, between Mount Carmel and Patton, in Wabash County, and expects to start operations within a short time.

Only two completions are reported from the Illinois Field during the week. In Friendsville Township, Wabash County, in the Bass Pool, Watson & Brewer's test in the northwest corner of the J. O. Wood farm, in the south half of the southeast quarter of Section 19, and an offset to the discovery well of the Ezra Bass farm, is reported at 35 bbls. Top of sand at 1,527 feet and drilled 27 feet in the sand. Healey & Lee are drilling a second test on the Bass farm, same section.

In Honey Creek Township, Crawford County, Phipps, Cawood and others' No. 7, in the northeast corner of the L. N. Tohill farm, in the northeast quarter of Section 31, pumped 10 bbls. from pay sand at 964 feet.

State Geologist's Reports

The Illinois State Geological Survey is doing good work in its survey, pointing out possible points for development work. "In order to further their own interests," the survey says, "operators in western Illinois should be particularly careful to co-operate with the Illinois Geological Survey by providing very careful information concerning the formations through which they drill. Although many tests have already been drilled in the Sparta area, there are a comparatively small number for which the data have been kept with a sufficient degree of accuracy to obtain maximum benefits. As a result, information which would probably be worth several thousand dollars to operators intending to prospect for oil and gas in the Sparta area is not available and may be obtained only from the examination of careful records of several wells which may be drilled in the future. Accordingly, it is urged that the State Geological Survey be given full information regarding all future tests so that the maximum assistance may be provided for further prospecting."

In the latest report of the Illinois Geological Survey, Gail F. Moulton gives a resume of operations for 1925. He says: "The new production developed during the year was of sufficient importance to cause a reduction in the rate of production decline, so that the production for 1925 was nearly as great as that for 1924, or almost 8,000,000 bbls. Prospecting proved up about 900 acres of new territory in Wabash County, about 100 acres of new territory in Clark County, 80 acres in Marion County, and some minor additions in other portions of the State. The principal drilling activity continued in Clark and Wabash Counties during 1925. In Crawford and Lawrence Counties, a small amount of drilling was done on edge locations and a few wildcats were drilled without satisfactory results. Similar development work was carried on in the minor producing areas in central and western Illinois. No important discoveries resulted from this work.

"The greatest activity took place in Wabash County, where real boom conditions existed for a time after the discovery of some large wells of Allendale. Several of the wells had an initial production of more than 500 bbls., and at one time four of the wells in the field would flow if allowed to stand. The producing wells drilled there during the three months of the year averaged about 150 bbls. initial production, and the percentage of dry holes was reasonably low.

"Wabash County drilling tested the Biehl horizon at a depth of about 1,400 feet over a considerable area, but some tests which were located on favorable structures failed to find the Biehl sand and unfortunately were not drilled deep enough to test the several possible oil producing horizons beneath are the equivalent of the Kirkwood, Tracey and McClosky sands of Lawrence County.

"In Clark County, there was considerable activity in the Martinsville deep sand area. Some additional areas were tested, but the principal activity was in deepening the wells already producing from the Carper sand in the Mississippian black shale at 1,400 feet to the Devonian limestone at 1,600 feet. Although a considerable amount of water must be handled with the deeper oil, no extra casing is needed so that the additional cost is comparatively small.

"The James Oil Co. opened a new pool in Marion County, about 2 miles east of the older production. Four producing wells have been obtained which find their production in sands in the Pennsylvanian system. None of these wells is deep enough to test the horizon from which most of the production in the Sandoval, Junction City and Centralia pools is obtained. Although the geology has not been worked out in detail yet, it seems possible that the accumulation may be caused by a small fault. Since faults are known to occur in adjacent areas, and if this accumulation has been caused by such a structure, much additional prospecting should be done in the vicinity.

"A well drilled in McDonough County, east of Plymouth, on Gin Ridge, obtained 10 to 15 bbls. of heavy black oil at a depth of 650 feet from the Hoing sand horizon of the Plymouth Field. Further prospecting in adjacent areas is in progress and will help to determine the extent of the Hoing sand.

"Drilling in other parts of the State failed to yield any results of particular importance."

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ARTESIA, NEW MEXICO

(Continued from Page 48)

pressure at 1,800 feet, picking up the oil sand at 2,208 feet.

The Dome Oil Co. is preparing to drill in its No. 6 in the SE cor. NE, Section 21-18-28, the hole being down 1,950 feet.

On the east side of the field the Wade & Bujac No. 1 on the Goodale permit, in the NW of Section 19-18-29, continues to gauge 260,000 feet of gas daily. The well has been temporarily shut down.

Drilling of the Wooley-Jones' No. 1 Beeson test in the SE of Section 33-17-30 has been resumed after a fishing job, the hole now being down 1,450 feet.

Considerable interest is being shown in the Rogers test on the Purcell-Sloop permit in Section 15-11-26, 12 miles east of Roswell. A shallow oil sand picked up up at 1,220 feet will be tested as soon as casing can be set.

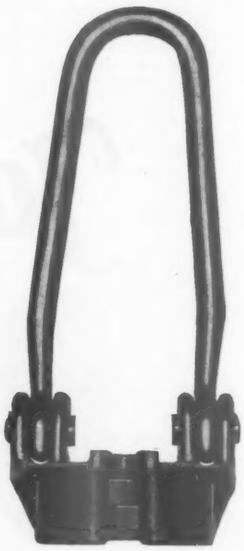
Four miles north of the proven area, the Texas Production Co. has encountered considerable gas at a depth of 800 feet in its No. 1, located in Section 17-17-28. This company is also drilling a wildcat in the extreme southwest section of Chaves County on what is known as Duncan Dome in Section 27-18-28, the test now being down 500 feet.

Eddy County

Decem Development Co.'s No. 1 Vandagriff NE, cor. SE, Section 5-17-28, drilling; Colorado Drilling Co.'s No. 1 Irvin permit, Section 8-16-27, fishing; Cook-Ironsides and others, Section 10-20-29, shut down; Compton No. 2 Mann permit Section 3-18-27, rigging up; Compton-Hasenfuss & Lewellyn No. 1, Section 16-18-28, fishing for bit at 1,675 feet; Dome Oil Co. No. 6 in Section 21-18-28, drilling at 1,950 feet; Flynn-Welch & Yates' No. 39, Section 21-18-28, drilling at 2,400 feet; No. 40 in Section 29-18-28, fishing; No. 41, in Section 3-18-28, drilling at 2,310 feet; No. 42 in Section 3-18-28, cleaning out after shot; No. 43 in Section 28-18-28, being deepened, drilling at 2,260 feet; No. 44 at Section 9-18-28, cleaning out after shot; No. 45 in Section 21-18-28, drilling at 1,400 feet; No. 4 Keyes location, 300 feet south and 300 feet east of the NW cor. Section 21-18-28; No. 47, location, 600 feet north of well No. 32 in Section 28-18-28; No. 46, location, 600 feet east of well No. 13 in Section 28-18-28; No. 48, location 600 feet west of well No. 12 in Section 21-18-28; Fletcher Oil Co.'s No. 2 McQuigg in Sec-28, drilling below 2,630 feet; Frontier Petroleum Co.'s No. 2 McQuigg in Section 4-18-28, fishing; No. 4, same section, on production; No. 10, 523 feet east of No. 11, on production; Hasenfuss-Donley's No. 1, in Section 13-18-27, drilling below 1,500 feet; Mesa Oil Co.'s No. 1 in Section 4-19-28, cleaning out after shot; Murray Oil Co. in Section 9-17-23, will resume drilling; Vanajo Oil Co.'s No. 1, in Section 28-17-28, cleaning out after shot; Ohio Oil Co.'s No. 5 Toomie-Allen in Section 28-18-28, drilling at 2,480 feet; No. 9 New States lease in Section 4-18-28, drilling at 3,950 feet; Harris & Rehn's No. 1 Winans in Section 15-18-26, shut down at 400 feet; Swartz-Compton & Eaton's No. 1 Brainard permit, Section 5-18-27, drilling at 1,510 feet; Twin Lakes Oil Co.'s No. 8 in Section 28-18-28, drilling below 1,900 feet; The Texas Company's No. 5 in Section 8-18-28, drilling below 1,300 feet; The Texas Company's No. 1 Bobbs permit, in Section 17-17-28, drilling at 1,300 feet; Wade & Bujac's No. 1 Goodale permit, in Section 19-18-29, shut down at 1,675 feet, making 260,000 feet of gas; Wooley-Jones' No. 1 Beeson permit in Section 33-17-30, drilling 1,525 feet.

Lea County

Maljamar Oil & Gas Corp.'s No. 1 Baish permit in Section 21-17-32, fishing at 3,682 feet for jars and bit; No. 1 Grace Mitchell permit in Section 5-17-32, rigging up; No. 1 Sterling Beardsley permit drilling at 150 feet; No. 1 Pearsall permit, in Section 33-17-32, moving in tools; No. 1 William Mitchell permit, in Section 17-17-32, drilling at 200 feet; No. 1 Pearl Miller permit, Section 33-17-32, drilling below 300 feet; Shugart and others' No. 1, Section 1-17-31, location; Ross' No. 1, Section 27-10-32, drilling below 2,500 feet.



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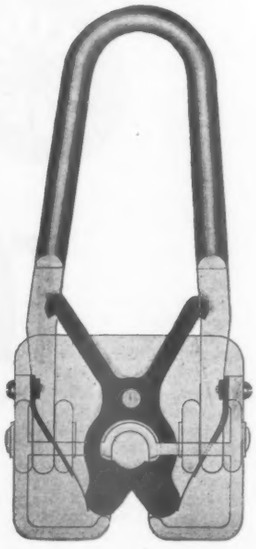

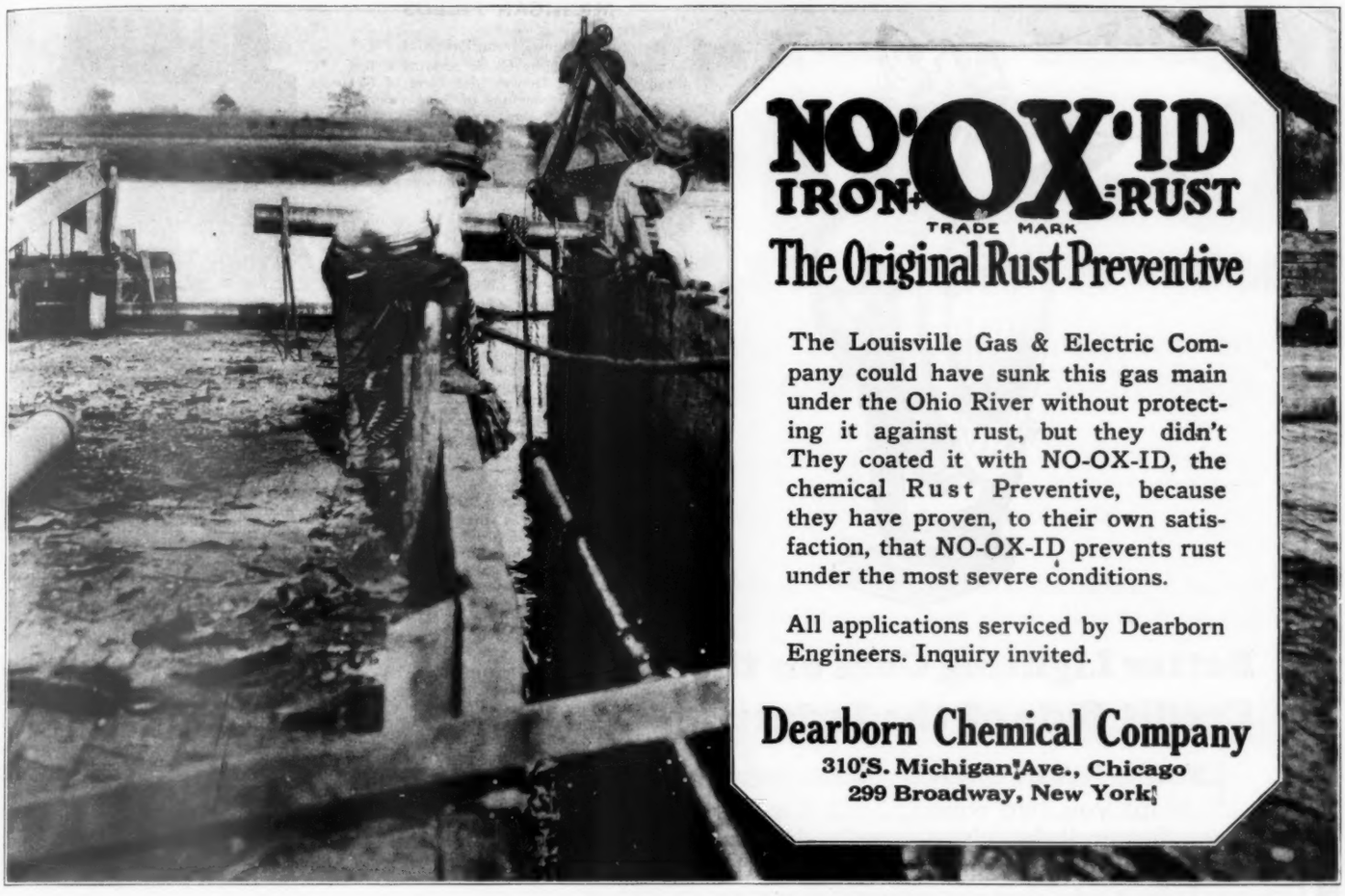

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Gilbert & Barker pumps are supplied in all the popular models, — visibles and piston types, five- and ten-gallon sizes, air or hand operation. Each pump embodies exclusive G. & B. features which can be depended on to develop sales in ever-growing volume.

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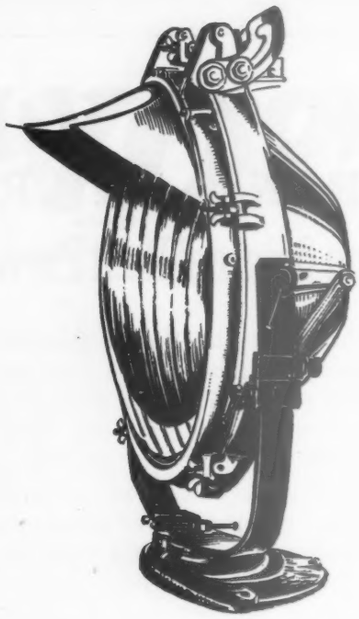

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OGJ 5-13 Gray

MICHIGAN FIELDS

(Continued from Page 62)

naw City Building Co. is starting a test on the E. E. Householder farm of 371 acres about five-eighths of a mile northeast from the Sun Co.'s Weiss well. Should the Bliss well on the Boldebuck and the Building Co.'s Householder well prove producers it will mean quite an extension for future development.

John G. Goll's View

There probably lies below Saginaw millions of dollars worth of oil, in the opinion of John G. Goll, contractor who has drilled the wells of the Saginaw Prospecting Co., he told members of the Kiwanis Club in an address at the club's luncheon Thursday at the Bancroft Hotel, says the Saginaw News Courier.

Contractor Goll says: "If you were to get a well like the Prospecting Co.'s first well almost anywhere else the fact would be heralded all over the country and you probably would have a thousand oil men here in 48 hours getting leases. I feel that under this city and the surrounding farms there probably lie millions of dollars worth of oil that you have been sleeping over."

Mr. Goll declared that oil wells in the Berea grit, the formation in which oil is being found here, usually are long lived, and said that the Saginaw wells probably will be producing oil 10 or 20 years from now. He also referred to the possibility of there being oil in deeper levels, not yet explored in the present development.

State Geologist Talks

State Geologist R. A. Smith has pronounced the Saginaw oil field a proven one and predicted to Fred A. Grimes, staff correspondent of the Saginaw News Courier that it will become one of the recognized producing sections of the Middle West.

Mr. Smith made the statement after several days of personal inspection of the Saginaw district and a trip into the northeastern section of the State, where private interests will start drilling for oil within three weeks.

"There are now seven wells under production," said Mr. Smith. "And they cover a territory more than a mile wide and a half-mile long, and this does not necessarily mean the extent of the pool. As a result of the seven wells that already have been sunk, between 75 and 100 more producing wells are assured in the area alone."

City Over Middle of Pool

The city of Saginaw itself is located over the middle of the pool now under development, according to State Geologist Smith.

"A well driven on the site now occupied by the Bancroft Hotel would be a money maker," said Mr. Smith. "The entire downtown section of Saginaw seems to be located on the very center of the pool now under development."

Mr. Smith has advised drilling interests to sink wells in the marshes along the Saginaw River, within the city limits, and several wells on stilts will make their appearance in the near future.

Though confident that the Saginaw oil field will be a money maker, Mr. Smith warns the investing public against incautious investment in oil enterprises there, and has advised the State Securities Commission to take measures to go exceedingly slow in authorizing sales of oil stocks.

"I am convinced that money will be made out of the Saginaw Pool," said Mr. Smith. "How much I cannot say. But I will say this, that the investing public should be more cautious in investing in any oil enterprise in Michigan."

During recent weeks Mr. Smith has had several conferences with members of the State Securities Commission, and a plan has been worked out under which the commission will go exceedingly slow in authorizing stock sales in any oil venture.

According to Mr. Smith, the development of the Saginaw Pool to the south is being held up by landowners who are demanding excessive prices for the leases.

The state geologist has been keeping a careful record of the wells now under production and declared that not

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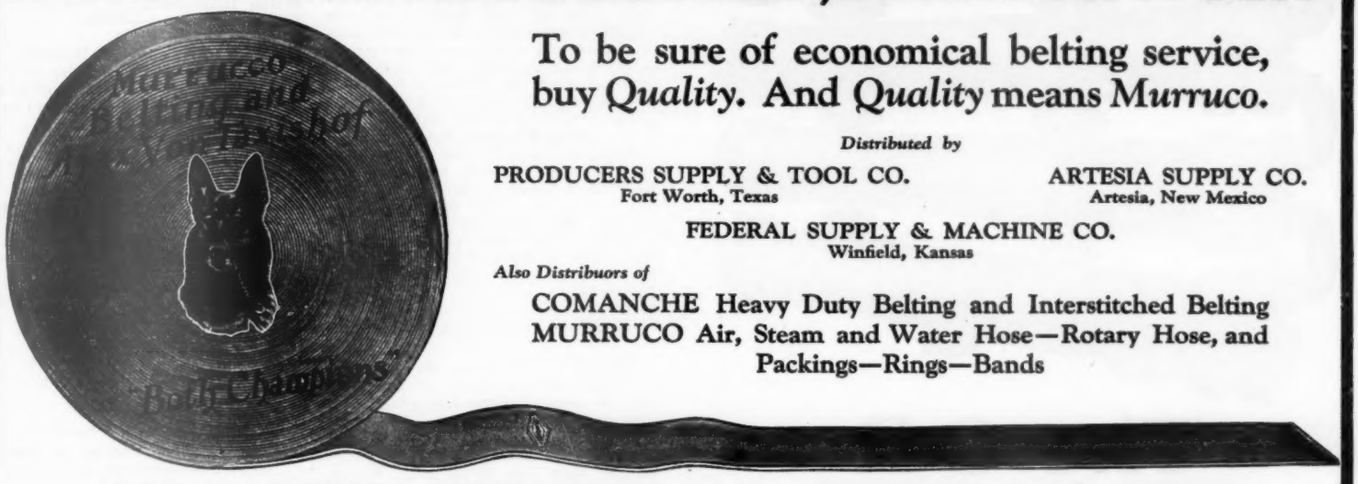

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only has the flow of wells been maintained, but the quality of the oil has improved. The Saginaw Pool, he says, is now producing oil equal to that produced in the Pennsylvania fields.

The Saginaw wells are producing from 7 to 40 bbls. of oil daily and Mr. Smith says there is no reason why 100 wells could not be under similar production in the territory already proved up.

The State will keep a careful watch on the test wells to be sunk in the northeastern section of the State. It is said that it is probable that the Saginaw Pool may extend into this district.

After a careful study of the Saginaw situation, Mr. Smith has come to the conclusion that wells sunk in Saginaw same years ago, and which later were abandoned because of the small amount of oil produced, were sunk on the extreme outer edge of the pool. Had other wells been put down the drillers of days gone by would have struck the pool which now promises to be a money maker.

Ohio Fuel Gas Leases

Eighty-five acres of land in three separate leases in Saginaw, Carrollton and Kockville Townships, were reported Monday by the Ohio Fuel Gas Co., of Columbus, Ohio, when they were left for recording. Sixty acres of the land covered leases in Saginaw Township, 15 in Carrollton and 10 acres in Kockville Township.

MONTANA FIRE CONTROLLED

GREAT FALLS, Mont., May 4.—After spouting a 200-foot geyser of flaming oil and gas throughout the night, the Queen City-Moore well No. 20, in the Kevin-Sunburst Field, was extinguished by steam. The well, unofficially reported making 4,000 bbls. of oil daily, was ignited by a spark from the drill house forge when it blew in.

OIL TRACES NEAR DEAD SEA

Indications of the presence of oil southwest of the Dead Sea in the Kurnub area are recorded in the report of an expedition to Southern Palestine by Adolf Rifenberg, research assistant in the Biochemical Institute of the Hebrew University.

EASTERN FIELDS

(Continued from Page 62)

pleted light wells. In the Fisher Pool, Lot 75, Athens Township, Athens County, the Gross & Faubault Co. has a 10-bbl. pumper in the Berea grit at No. 4 on the Daniel N. Higgins farm. In Section 21, Knox Township, Columbiana County, Canton parties have a very light pumper at a second test on the Hoffman heirs' farm.

West Virginia

At the week-end of development work the West Virginia fields completed light pumpers and gas wells. On the waters of Elk River, Big Sandy district, Kanawha County the United Fuel Gas Co. completed a test on the O. J. Morrison farm. It is a gasser in the Keener sand. In Buff Lick run, same district, the same company, completed in the Big Injun sand a test on the J. O. Jackson farm. It is a gasser good for 339,000 feet.

Gasser on Church Lot

In Geary district, Roane County, Taylor & Cart have completed a test on the M. E. Church lot, a gasser in the Big Injun sand. In Lee district, Calhoun County, the Hope Natural Gas Co. has completed a test on the Samuel Husk farm. It is very light in the Berea grit. In Center district, Gilmer County, McCall & Co. have a gasser in the salt sand at a test on the Floyd Moore farm. In Clay district, Monongalia County, the Carnegie Natural Gas Co. has a gasser in the Bayard sand at 3,495 feet at a test on the Josephus Wilson farm.

In Central district, Doddridge County, the Hope Construction & Refining Co.'s test on the Lucinda Williams farm is good for 10 bbls. a day in the Maxon and Big Injun sands. In Glenville district, Gilmer County, J. H. Taylor and others have a duster in the Squaw sand on the Jefferson Campbell farm. It has been abandoned. The Laurel Develop-

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BRECKENRIDGE—Roy Richardson, 127.
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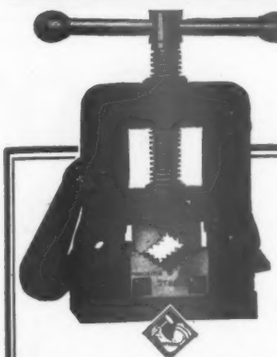

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ment Co.'s No. 4 on the B. B. Jaynes farm, in Carroll district, Lincoln County, is a gasser in the Berea grit.

In Mannington district, Marion County, the Dumar Oil & Gas Co. has drilled a test on the W. O. Mayne farm into the Maxon sand showing for a light pumper. It has been shut down for orders. In Battelle district, Monongalia County, the Pittsburgh & West Virginia Gas Co.'s test on the Perry Kennedy farm is a gasser in the Gordon sand.

Light Pumper in Ritchie County

In Grant district, Ritchie County, the Continental Oil Co.'s No. 3 on the M. A. Ridgeway farm is good for 10 bbls. a day in the salt sand. In Murphy district, the Southern Oil Co. has drilled old No. 13 on the Dawson heirs' farm deeper and is a gasser in the Big Injun sand. In Walker district, Wood County, V. B. Darby's test on the J. S. Heck farm has a show of oil in the salt sand.

Gassers in Calhoun County

On Steer Creek, Sherman district, Calhoun County, the Hope Natural Gas Co. has a gasser in the Maxon sand, estimated good for 750,000 feet a day, on the Franklin Sourbourne farm. In Center district, same county, the same company has completed a test on the Guy Gainer farm. It is a gasser in the Big Injun sand and good for 250,000 feet.

On Green Creek, Harper district, Roane County, the Green Creek Oil & Gas Co. has the rig completed for a test on the Ruby Dixon farm. In Central district, Doddridge County, the Carnegie Natural Gas Co. has a rig up on the Agnes A. Carder farm. In the same district, Nay & Kentzer have the rig completed for a second test on the Radabaugh Sons' farm.

On Dutchman run, Grant district, Ritchie County, the South Penn Oil Co. has drilled down to the Big Injun sand its old test on the Dawson heirs' farm. It is a gasser in the lower formation, good for 500,000 feet.

Gasser in Clay County

In Union district, Clay County, the United Fuel Gas Co. has completed in the Big Injun sand its test on the Guy Boggs farm. It is a gasser good for 500,000 feet. In Jefferson district, Pleasants County, the Bailey Gas Co. H. S. & J. E. Ambler farm have a duster in the Maxon sand at No. 6 on the J. E. Ambler farm. In McKim district, the Delong Farm Oil Co.'s test on the C. C. Delong farm is dry in the Cow Run sand.

On Gillespie run, Grant district, Ritchie County, the Continental Oil & Gas Co. has completed a second test on the W. A. Ridgeway farm good for 10 bbls. a day in the salt sand. In Center district, Wetzel County, the Myers Oil & Gas Co. has completed in the Gordon sand a test on the J. K. Long farm, good for 4 or 5 bbls. a day.

Drilling Tests

In Freemans Creek district, Lewis County, the Manufacturers Light & Heat Co. is fishing for tools at 1,350 feet on the T. J. Fahey farm. In Troy district, Gilmer County, the Ohio Fuel Oil Co. is placing rig timbers at a location on the J. E. Smith farm. In Birch district, Braxton County, the Pittsburgh & West Virginia Gas Co. has started to drill on the Louis Bennett farm.

In Union district, Ritchie County, the Carnegie Natural Gas Co. is rigging up on the A. L. Britton farm. In Grant district, L. N. Rinehart & Co. is building the rig for a second test on the A. L. Britton farm. In Murphy district, the Hardick Farm Oil Co. has made the location for a second test on the C. Hardick farm. In the same district, W. A. Bickerstaff has made the location for a test on the Fairview M. E. Church lot. In the same locality, the Hope Natural Gas Co. is building a rig on the L. M. Ehret farm.

Calhoun County

In Lee district, Calhoun County, the Ohio Fuel Oil Co. is due in the sand on the G. W. Shafer farm. In Sherman district, Weaver & Lewis have a rig up on the Mary Kelley farm. Godfrey L. Cabot is building a rig on the L. C. Hamilton farm. In Lee district, McIntosh & Scott have started to drill on the J. M. Morgan heirs' farm.

In Ten Mile district, Harrison County, the Clifton Oil Co. has started to

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drill on the J. J. Williams farm. In Elk district, the Hope Natural Gas Co. is drilling at 1,700 feet on the Asa B. Talbott farm. In Union district, the Hope Construction & Refining Co. is down 2,804 feet on the Marshall Martin farm. In Ten Mile district, Burke & Lyons are skidding the rig at a second test on the W. T. Williams farm. In Clark district, Rapp & Nutter have made a location on the G. C. Nutter farm. In Sardis district, Hoffmire & Deegan are due in the Gordon sand on the G. H. Nutter farm.

In New Milton district, Doddridge County, Trainer & Travis are building a rig on the C. Ford farm. The same parties have made a location on the Paul Allen farm. In Freemans Creek district, Lewis County, the Hope Natural Gas Co. has shut down at 2,200 feet on the Benjamin Riffee farm. In the same district, F. G. Bish & Co. have shut down at 1,920 feet on the N. G. Douglass farm. In Grant district, Cabell County, the Aetna Oil & Gas Co. has started to drill on the John Davidson farm.

In Otter district, Braxton County, the Pittsburg and West Virginia Gas Co. has started to drill a second test on the Louis Bennett farm. In Lee district, Calhoun County, McIntosh & Miller have started to drill on the J. M. Morgan heirs' farm. In Union district, Marshall County, the Decem Development Co. has started to drill on the Mrs. John Minkmire farm. In Liberty district, the Denver Oil & Gas Co. has a rig up on the Margaret Campbell farm. In Union district, Wasmush & Kellihan have made a location on the Mrs. Lydia McMechen farm.

Gilmer County

In DeKalb district, Gilmer County, the Pittsburg & West Virginia Gas Co. has started to drill on the Delbert Stalnaker farm. In Center district, the Mill Fork Oil Co. has started to drill on the U. S. Upton farm. In DeKalb district, S. G. Roberts & Co. are building a rig on the Allbert S. Beall farm.

Southwest Pennsylvania

In Springhill Township, Greene County, the Keystone Oil & Gas Co. has a gasser in the Big Injun sand on the Benjamin Stipes farm. In the same township, the Taylor Oil & Gas Trust Co has made a location on the John Taylor farm. In Morris Township, Leonard & Co. have a rig up on the William Tripp farm.

In Marshall Township, Allegheny County, Dunlap & Co.'s test on the William Dean farm is a gasser. In the same township, Behm & Co.'s test on the G. E. Douthett farm is also a gasser. In Ross Township, Walley & Co. have a dry hole at a test on the Hahn heirs' farm. In McCandless Township, Smith & Co.'s test on the Bloom farm is a gasser.

Good Gasser in Greene County

In Spring Hill Township, Greene County, Pa., J. F. Swisher has completed in the Big Injun sand a test on the Anna Lantz farm. It is a very good gasser, estimated at 6,000,000 feet a day.

In Springhill Township, Greene County, the Fox Oil & Gas Co. has drilled deeper its No. 2 on the Thomas Shook farm. It is a gasser in the Big Injun sand.

In Ohio Township, Beaver County, Reed and others have drilled a second test on the G. L. Dawson farm through the sand and showing for a 10 or 12-bbl. pumper. On Mount Nebo, Marshall Township, Allegheny County, William Steer and others have a 3-bbl. pumper in the 100-foot sand at a test on the Emma O'Neil farm.

KENTUCKY-TENNESSEE

(Continued from Page 60)

time in the Hopewell Pool along the Cumberland-Adair County line and the area is bound to get a heavy play until the prospective territory is thoroughly tested. The No. 3 Grider of Sam K. Baird & Hickman in this pool that blew in caught fire and destroyed a drilling rig for Mr. Thrasher and ran wild some 12 hours, is closed down waiting a new rig in order to remove the tools which are still in the hole. This is in the Crocus Creek district and reminds the natives of the big well of years ago that flowed into the

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Cumberland River and caught fire, illuminating the sky for miles around and at one time it is said that at least 10 miles of oil was ablaze at one time on the surface of the river. A rig has been moved to the Sam K. Baird 180 acres in fee, which was recently purchased by him from Morgan and Parrish. Mr. Hickman is also interested in the proposition with Mr. Baird.

In the same area, Tabor & Erwin of Bowling Green are moving in a rig to the Hiram Jackman farm. This property will be drilled for J. R. Crawford of Shreveport, La. Mr. Norton of the Paragon Development Co. was inspecting the Hopewell Pool the past week.

The well drilled for Sam K. Baird on the Morgan farm was a gas well in the Upper and Lower Sunnybrook, which was capped to be used for power on the lease. The rig was moved some 1,000 feet southwest of the Morgan farm, and drilling.

Wood-Haislet-McLennon & Calhoun have purchased two 250 and one 500-bbl. tanks as additional storage, in the Hopewell Pool, and Baird & Hickman have received four 100-bbl. welded tanks.

A. L. Byrd, representing the Dixie Oil Co., and H. D. Crider, the geologist for the Dixie, are at the Wood-Haislet camp checking this structure and expect to complete their work before the middle of May. The Rex Oil Co. of Lexington, Ky., has blocked some 5,000 acres northeast of the present production in the Hopewell Pool, and placed a contract for several tests. George Phillippi and others of New Orleans, La., are down close around 200 feet on the Patterson lease on Harrods Fork of Crocus Creek, which is 2 miles west of Hopewell church. Numerous operators are in the new field and leases are changing hands and trading is extending to all sections in southern Adair County and northern Cumberland County.

In the Sulphur Creek district of Cumberland County, W. S. Raydure and Son, got a nice showing at 638 feet at No. 5, on the M. E. Coop farm. This is 85 feet below the Pencil Cave, and will be drilled to 325 feet below in order to get any pays below. Hook & McComas, at last report, was at a depth around 625 feet, and a second test on the J. B. Riddle farm.

In the Kettle Creek Field, the Two Creeks Oil Co. is reported at a depth close around 400 feet at No. 1 W. T. Blythe farm. Peach Orchard Oil Co. is about the same depth at No. 1 C. Scott farm, as are McClintock and others at No. 1, on the Dave King farm. Young Oil Co. is shut down at 450 feet in its second test on the J. Pondexter farm.

In the Pulsey Creek area, McClintock, Reid & Haeckathorn have started drilling No. 3 J. M. Hughes farm. On Williams Prong, Wilcox Brothers are down close around 400 feet in No. 2 Davis, while in West Fork area, the Alta Oil Co.'s No. 2 C. T. Chetam is shut down for orders.

Warren County

In the Bowling Green Field of Warren County, P. H. Lavelle has exhausted the larger portion of salt water in his No. 8 on the W. R. Hunton farm, and is reported to be getting 25 bbls. of oil a day from the depth of 491 feet.

The Lincoln Oil Producing Co.'s No. 5 C. E. Snell farm, is reported at 5 bbls. in the deep sand at 1,315 feet. No. 4 is about the same size producer.

T. A. Sheridan is drilling No. 5, on the No. 3 Georgianna Davenport farm, in the Davenport Pool. E. M. Treat and others are drilling No. 10 Edward & Betty Bass farm. A. T. Bannon is drilling No. 23 Charles Cox farm. Onsel Brothers are working at No. 6 C. G. Davenport, and the Bull Bayou-Homer Oil Co, is drilling No. 12 E. G. Savage farm. Onsel Brothers are due to complete No. 12 Mary Ferguson farm.

Allen County

In the Scottsville Field of Allen County, Lee Moore's No. 5, on his own farm, is estimated at 4 bbls. from a depth of 377 feet, while R. A. Stohr's No. 8 Johnson was dry at 316 feet. Fred W. Owen is due in with Nos. 10 and 11 A. A. Davenport farm.

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CANADIAN FIELDS

(Continued from Page 54)

tion 20-19-2w5, has derrick timbers on the ground and equipment ordered for a test. British Dominion No. 1, LSD 4, Section 5-20-2w5, is rigging up, and will spud in about May 15. New Black Diamond Oil Co., LSD 1, Section 3-20-3w5, is rigging up. J. R. Halstead will have charge of the drilling.

In the Moose Mountain Field, Signal Hill No. 1, LSD 9, Section 34-23-5w5, is underreaming, and is now down 2,025 feet with the 6½-inch hole. A second test will be spotted for the company by Dr. J. A. Allan of the University of Alberta; derrick timbers and equipment for this have been ordered. Cherokee Oils, Ltd., Section 33-23-5w5, has finished underreaming at 1,664 feet and has started on new hole. Priddis Valley Oils, Ltd., recently incorporated for $250,000 under Dominion charter, has spotted tentative locations in Section 28-23-5w5 and Section 6-24-4w5. Officers of the company are, president, A. W. McGuire; vice president, D. R. G. Williams; secretary-treasurer, A. G. Galbraith; directors, A. C. Wheatcroft, N. Naylor, S. H. Grantham, I. C. Fry, R. S. Crawford. Mount Royal Oil Co. has definitely located its test on Section 30-26-5w5.

Border Field

In the Border Field, close to the Montana boundary, Urban Oils, Ltd., Moodie No. 1, Section 4-1-5w4, Quarantine Reserve, is reported drilling in a hard formation at 2,800 feet, after setting 4¾-inch casing at about 2,700 feet. At 2,740 feet a small flow of gas was encountered. A syndicate headed by Frank Michener of Red Deer, Alta., will drill a deep test on acreage on the Milk River Dome, between the town of Milk River and the Quarantine Reserve near Coutts. On the Quarantine Reserve a Calgary syndicate has contracted to finish the Lethbridge Oils, Ltd. (Baalim) well in Section 12-1-15w4. The Calgary syndicate will carry the test, now down about 2,040 feet, to a minimum depth of 2,500 feet. The test was started by the Baalim interests in 1922 at the time of the Sweetgrass boom, but was left unfinished. Last year the derrick was burned, but the hole is in good condition. A new derrick will be built, the rig assembled, and drilling will resume before the end of May. Swift Current Oil Co., financed by Saskatchewan interests, has finished a small pumper on the Montana side, with some gas production. Model Oils, Ltd., of Calgary has spudded in a test on the Montana side. Dominion Oils, Ltd., of Calgary, drilling in Montana has abandoned No. 1 well owing to sulphur water at 1,523 feet; a contract has been let for No. 2.

Monalta Oils, Ltd., of Calgary is down 600 feet with a test on the Anderson farm, close to Sweetgrass, Mont., the outfit is running double tower. Officers of the company include, president, I. W. McArdle; vice president, T. W. Robinson; secretary-treasurer, W. S. Davidson; directors, Fred J. Marshall, W. H. Rowan, George H. Cutts. The Monalta test is just 4 miles east of the Imperial Oils, Ltd., Red Coulee test, which got a show of oil west of Coutts, but no commercial production.

United Oils, Ltd., is down 600 feet with a test for gas in the Foremost Field, southern Alberta. Canadian Western Natural Gas Co. of Calgary is rigging up a test for gas in the same field. Local men have filed on considerable acreage in the Steveville district, north of Bassano, Alta., and are securing a geologist's report. At Grassy Lake, Alta., a test for water drilled to 700 feet got a fair incidental gas production, which is to be used for street lighting.

Saskatchewan

At Hoey, in the Prince Albert district, Saskatchewan, a 180-foot test for water on the Boutin farm struck a heavy gas flow. The production has been shut in. Several onlookers were injured when a match was struck, igniting the gas.

In northern Alberta, renewed interest is being shown in the Peace River district. This area was extensively tested for oil some years ago. Upwards of 12 tests were drilled in the river flats below Peace River town, the tests being located at varying distances over a stretch of something like 30 miles north of the town. In these tests, a sand saturated with heavy asphaltic crude was uniformly met near the bottom of the Cretaceous at approximately 900 feet depth. The production at this horizon was regarded as insufficient, and in drilling deeper to secure larger production, the drills penetrated a sand where heavy flows of gas and water were encountered almost simultaneously. Several wells had to be abandoned in this horizon owing to inability to shut off and control the water. In no case was a shot attempted in the heavy sand, or even a pumping test; nor was cement used to shut off the water.

Among the later tests drilled, Peace River Petroleums, Ltd., No. 2 encountered the asphaltic oil sand at 897 feet, with a heavy gas production underlying it. The oil seems to have been a fair pumping production, but the water was not shut off, and the well has been gushing salt water ever since. Peace River Oil Co. No. 2 got an oil sand, with a possible production of 20 bbls. a day, between 962 and 1,032 feet, and the heavy gas and water flow around 1,082 to 1,125 feet. These wells were some distance north of the town. At Peace River town the Victory Oil Co. drilled a careful test and got to 1,540 feet a large gas flow being encountered in the last 10 feet; later the water got beyond control, but the company is planning to cement off the water this summer and bring in the well.

Near Three Creeks, some miles below the town, Canadian Petroleums, Ltd., drilled the deepest test in the field. The water difficulty was successfully handled, and the test cased to 2,700 feet. While waiting for casing, drilling was continued and at 3,200 feet the well caved, burying the drill. This well got into the Upper Devonian where some small oil shows were encountered, drilling being continued for larger production. The A. B. C. Oil Co. of Vancouver, B. C., started a test last season and is now resuming work; this test at last reports had not got to any great depth. The abandoned Peace River wells have a large aggregate gas production, which is blowing open.

Ontario Fields

In the Ontario fields, Union Natural Co. No. 20 deep test in Dover Township, Kent County, is on top of the Trenton at 2,800 feet with casing set, and will resume drilling early next week. In Zone Township, Kent County, the Colchester Oil & Gas Co. E. P. Rowe deep test is in the Trenton limestone at 3,650 feet. This test got the top of the Trenton at about 3,075 feet, which is believed to be the lowest depth at which the Trenton has yet been encountered in Ontario. The well looks like a dry hole.

In Lambton County, W. J. Hussey has finished a dry hole in Brooke Township. The outfit has been moved to the Joseph Barber farm, concession 8, Enniskillen Township, where a test for shallow oil will be drilled to 470 feet. A shallow producer at this point drilled 27 years ago yielded 35 bbls. a day for eight months and then stopped, and an attempt is being made by Mr. Barber and associates to reopen the field.

In Ontario County, J. E. Hinkson and associates are down 200 feet with a test for coal or gas on the flats, near Oshawa. The plant is shut down, but drilling will probably be carried to 500 feet.

N. LOUISIANA-ARKANSAS

(Continued from Page 48)

Keene & Woolf's No. 3 Urania, Section 19-10-2e, is in 3 feet of sand topped at 1,450 feet and flowing 25 bbls. daily. Keisker's No. 1 Russell, Section 25-10-1e, was completed at 1,548-55 feet for a 30-bbl. pumper. Natural Gas & Fuel Co.'s No. 7 H. Tullos, Section 26-10-1e, is flowing 125 bbls. daily from sand at 1,485-88 feet. Roberts and associates' No. 5 Russell, Section 25-10-1e, is flowing 200 bbls. daily from sand at 1,535-42 feet. Standard Oil Co.'s No. 5 Urania, Section 13-10-1e, is pumping 40 bbls. daily from sand at 1,530 feet. W. & H.

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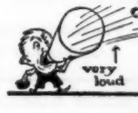

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Oil Co.'s No. 1 King, Section 36-10-1e, tested salt water at 1,870 feet and was abandoned. Yeary & Bristol's No. 1 Urania, Section 8-10-2e, is flowing 100 bbls. daily from sand at 1,513-15 feet.

Urania Operations

At the end of the week Urania had 33 tests drilling, 11 wells waiting on standard rigs, 9 rigged up, 20 derricks standing and 9 locations staked in the field.

On the King lease, in Section 25-10-1e, J. S. Abercrombie & Co.'s No. 8 is a derrick; No. 9 tested salt water at 1,548 feet and arrangements are being made to plug back a few feet and try to save the well; No. 14 is waiting for the 6-inch casing to set at 1,546 feet and No. 15, 150 feet south and east NE SW SE, Section 25-10-1e, is being rigged. Alexander Oil Co.'s No. 3 Urania, Section 19-10-2e, is rigging. Arizola Petroleum Co.'s No. 5 Tannehill, Section 35-10-1e, is drilling at 500 feet and No. 6 is coring at 1,500 feet. W. H. Burckhartt's No. 1 Smith, Section 26-10-1e, is coring at 1,545 feet. Carter & Hurley's No. 1 Urania, SE SW, Section 8-10-2e, is a derrick. Cherokee Petroleum Co.'s No. 3 Louisiana Central, NE NE NE, Section 33-10-3e, is a derrick.

O. W. Clark's No. 2 Bass, Section 25-10-1e, is a rig. Six-inch casing was set at 1,520 feet at Cox and associates' No. 3 fee, Section 26-10-1e, and 6-inch was cemented at 1,520 feet at Daniels and associates' No. 2 Tullos, Section 25-10-1e. Degman & Youngblood's No. 1 Hardtner-Tannehill, Section 8-10-2e, is shut down at 1,413 feet waiting for orders. Dixie Oil Co.'s No. 6 Urania, Section 24-10-1e, is drilling at 1,350 feet. Explorers Oil Co.'s No. 2 King, Section 36-10-1e, is drilling at 800 feet. Hamilton & Musick's No. 2 Volk, Section 26-10-1e, is drilling at 1,200 feet. Surface casing was set at 103 feet at Hardtner Oil Co.'s No. 3 Urania, Section 7-10-2e. A. E. Hudson's No. 3 Urania, Section 7-10-2e, is coring at 1,505 feet. Hunt and associates' No. 4 State, Section 26-10-1e, is drilling at 700 feet. Six-inch casing was set at 1,472 feet at Hunt and associates' No. 6 Tullos heirs, Section 26-10-1e, and derricks have been erected for No. 10, SE SE NW, and No. 11, NE SE SW. Hunt McCurry & Zoder's No. 2 Winberry, Section 18-10-2e, is waiting for the six-inch to set at 1,502 feet. The cement plug is being drilled out at 1,549 feet at Jones and associates' No. 1 Norrid, Section 25-10-1e.

Louisiana Oil & Refining Corp.'s No. 31-B Tremont, Section 25-10-1e, could not be made into a commercial gas well at 950 feet and the hole was drilled down to 1,514 feet where 6-inch casing was cemented. The cement plug at 1,529 feet is being drilled out at the Little River Oil Co.'s No. 1 Ratcliff, Section 25-10-1e. On the Tremont A lease Louisiana Oil & Refining Corp.'s No. 6, NE cor. SE NE, Section 35-10-1e, is a rig and No. 7, NW NE SE, is a derrick. Surface casing was set at 102 feet at Montague Oil Co.'s No. 1 Zenoria Lumber Co., Section 11-9-1e. Six-inch casing was cemented at 1,541 feet at McWilliams & Foster's No. 2 Russell, Section 25-10-1e. Minnesota Oil Corp.'s No. 1 J. M. Cotton, Section 25-9-2e, is drilling at 1,700 feet. Natural Gas & Fuel Co.'s No. 2-B Urania, Section 18-10-2e, is drilling at 600 feet and 6⅝-inch casing was cemented at 1,495 feet at No. 3-B Urania and No. 4-B is drilling at 1,180 feet. On the Urania lease the same company's No. 1 is drilling at 104 feet and surface casing is to be set at 105 feet and No. 2, NW SW NE, is a derrick. Ohio Oil Co.'s No. 7 Urania, Section 16-10-2e, is waiting for a standard rig with a hole full of oil from sand at 1,513-17 feet, and No. 8 Urania, Section 16-10-1e, is rigging.

Surface Casing Set

Surface casing was set at 103 feet at L. E. Ozley's No. 2 fee, Lot C, Tullos Townsite, Section 26-10-1e. Six and five-eighths inch casing was set at 1,536 feet at Roberts and associates' No. 6 Russell, Section 25-10-1e. Six-inch casing was cemented at 1,525 feet at Sherman and associates' No. 3 Russell, Section 25-10-1e. Shreveport Oil Corp.'s No. 1 Urania, Section 8-10-2e, is a derrick. H. R. Smith's No. 1 Hardtner, NE cor. NW, Section 22-10-2e, is a rig. Standard Oil Co.'s No. 6 Urania, Section 13-10-1e, bailed dry at 1,541 feet and is to be drilled deeper. A derrick is standing for Standard's No. 8 Urania, SW NE SE, Section 13-10-1e. Sterling, Inc., No. 2 Wimberry, SE NE NE NW, Section 18-10-2e, is a rig. O. F. Whittaker's No. 3 Kink, Section 36-10-1e, is coring at 1,500 feet. Williams Drilling Co.'s No. 4 Herbert, Section 26-10-1e, is waiting on a standard rig and is in sand at 1,530-39 feet. Six-inch casing was cemented at 1,508 feet at Williams Drilling Co.'s No. 5 Herbert, Section 26-10-1e, and No. 6 is being rigged up. Yeary & Bristol's No. 2 Urania, SW NW SW, Section 8-10-2e, is a rig.

Bossier Parish

Arkansas Fuel Oil Co.'s No. 1 Murray, Section 14-23-14, is drilling in shale at 3,280 feet. Nacatoch sand was cored at 1,814-15 feet at Woodley & Collins' No. 1 L. & A. Oil Co., Section 14-23-12, and the test is drilling ahead at 1,816 feet. In the Bellevue Field Autrey and associates' No. 1 Smith, Section 15-19-11, tested salt water at 449 feet and was abandoned. Same operators have a rig up in the C S half SE SE, for No. 2 Smith.

Caddo Parish

Five completions were recorded in Caddo Parish during the week. Dixie Oil Co.'s No. 15 Muslow, Section 7-20-15, is making 12 bbls. on the pump from sand at 1,586 feet. Gulf Refining Co. completed two on the L. B. Caddo lease, Section 16-20-16. No. 4-U is making 75 bbls. daily on the pump at 2,288 feet and No. 5-U is flowing 60 bbls. daily at 2,265 feet. The Texas Company's No. 1 Ellebre, Section 21-15-12, is making 4,500,000 feet of gas from sand at 829 feet and The Texas Company's No. 57 S. P. Harrell, Section 4-21-16, is pumping 35 bbls. of oil and 200 bbls. of salt water from sand at 2,377 feet.

Arkansas Natural Gas Co. is drilling the cement plug at 3,607 feet at No. 1 C. W. Lane, Section 13-21-15. Ten-inch casing was set at 100 feet at Askew and associates' No. 1 Davis & Butler, Section 7-20-15. H. J. Bussa's No. 1 Hardeman, Section 24-22-15, is shut down at 1,053 feet waiting for orders. When the liner was set at the test it cut off the gas and oil but failed to stop the water encroachment. W. D. Chew's No. 3 State, Section 34-21-16, is drilling at 1,850 feet. Dixie Oil Co.'s No. 1 Jolly, Section 27-22-15, is drilling in hard lime and shale at 4,011 feet. Dixie's No. 16 Muslow, 410 feet south and 608 feet east, center Section 7-20-15, is being rigged up. Ten-inch casing was set at 80 feet at Dixie Oil Co.'s No. 75 Robertshaw, SW cor. Section 12-21-15, and 6-inch was set at 1,044 feet at Dixie's No. 5 Worley, Section 23-22-15. Twelve and one-half inch casing was set at 100 feet at Gilliam Syndicate's No. 1 Sellington, Section 17-2-14, and the test is drilling ahead at 800 feet.

To Be Deepened

Salt water encroachment proved too great at the Gulf Refining Co.'s No. 1 J. M. Byrd, Section 2-19-14, in the Nacatoch sand at 968 feet and the test is to be deepened. On the Ferry Lake lease Gulf's No. 231, Section 22-20-16, is drilling in chalk rock at 1,600 feet; No. 232, Section 15-20-16, is drilling in gumbo, at 1,895 feet and a derrick is being built for No. 234, same section. Gulf's No. 1-E Muslow, Section 35-21-15, cored lime and shale at 3,427 feet and No. 12 Tyson, Section 14-21-15, is drilling in broken shale at 3,650 feet. Lewis Oil Corp.'s No. 14 D. H. Raines, Section 22-21-15, is drilling at 40 feet. Magnolia Petroleum Co.'s No. 16 Dillon, Section 24-21-15, is being rigged up as is No. 17 Dillon. Same company's No. 1 Bradford, Section 24-21-15, is drilling in lime and shale at 2,845 feet and surface casing was set at 137 feet at Magnolia's No. 22 Raines, Section 22-21-15.

Six-inch casing is being set at 1,435 feet at McGoldrich and associates' No. 8 Murray, Section 14-21-15. Ohio Oil Co.'s No. 1 J. S. Ardis, Section 1-21-15, is coring packed sand at 4,225 feet, corrected measurement. Arrangements are being made to shoot the chalk rock at

1,614 feet at Ohio's No. 19 E. K. Smith, Section 12-21-15. Six-inch casing was set at 2,230 feet at Oil City Oil Co.'s No. 2 Satterwhite, Section 10-20-16. The Texas Company's No. 47 C. M. L. Co., Section 23-21-15, is drilling in hard lime at 2,622 feet. Same company's No. 52 Harrell, Section 12-21-16, was bailed down and 7 feet of oil stood in the hole and at 1,991-95 feet the test cored gummy shale. The Texas Company's No. 4 Mason fee, Section 33-21-16, cored chalk rock at 1,528 feet. A derrick is standing 1,875 feet north and 1,450 feet west SE cor. Section 15-21-15, for The Texas Company's No. 18 D. H. Rains. Tholl Oil Co.'s No. 8 Huckaby, Section 14-21-15, is drilling at 1,385 feet.

Caldwell Parish

Charles Daniels' No. 1 Lively, Section 6-12-4e, is drilling below the 1,460-foot level. Ten-inch casing was set at 100 feet at Cherokee Petroleum Co.'s No. 1 Louisiana Central, Section 10-11-2e. Grant & Pipes' No. 1 Cruse, Section 6-11-4e, is shut down at 1,025 feet. T. R. Robbins has staked a location for No. 1 Beasley, NW SW SW, Section 10-11-4e. Standard Oil Co.'s No. 1 Cruse, Section 30-11-4e, is being rigged. Arrangements are being made to resume drilling at Wright and associates' No. 1 Love-Section 16-11-2e, which had been shut down at 1,460 feet.

De Soto Parish

De Soto Parish's single completion was The Texas Company's No. 10-A Wemple. Section 2-12-12, which was finished up at 2,450 feet pumping 4½ bbls. of oil. The tools stuck in the hole at the Dixie Oil Co.'s No. 1 Jenkins, Section 9-12-11, while 6⅝-inch casing was being underreamed to 3,805 feet. Carl K. Dresser's No. 1 Williamson, Section 29-15-14, is drilling at 1,900 feet. J. P. Evans' No. 1 Louisiana L. & D. Co., Section 15-12-14, is rigging. Surface casing was set at 170 feet at Evans' No. 1 Sutherland, Section 20-12-14. Four and one-half inch casing was set at 2,724 feet at Magnolia's No. 1 Bond, Section 27-12-11, and the test is being bailed. Ohio's No. 1 Cody, Section 34-12-16, is drilling at 2,278 feet. L. V. Ulrey's No. 1 Heard, Section 18-12-12, is drilling at 1,700 feet.

Grant Parish

Bradley & Cozart's No. 1 Holmes, Section 16-9-1e, is a rig. Finn and associates' No. 5 Ball & Cody, Section 13-8-1w, is drilling below the 2,021-foot level. Finn & Hurdley's No. 1 Ball, Section 32-7-1w, is drilling at 450 feet. Gulf Refining Co.'s No. 1 Swope, Section 18-9-1e, is a rig. Humble Oil & Refining Co.'s No. 2 L. & A., 2,440 feet north and 200 feet west SE cor. Section 3-9-1w, is a rig and the same operators have a derrick up for No. 3, 300 feet north and west center Section 3-9-2w.

Monroe District

Two more gas wells with a combined production of 13,000,000 feet were added to the Monroe gas field output. Palmer Corp.'s No. 2 Kate Cole, Section 26-20-4e, is making 6,000,000 feet of gas from 2,172 feet and United Carbon Co.'s No. 1 Wilson, Section 24-20-4e, was completed at 2,183 feet for a 7,000,000-foot gasser.

The Texas Company's deep test in that area, No. 1 Tremont, Section 27-18-1w, is drilling in gumbo at 3,147 feet. Huber, Inc.'s No. 2 Edwards, Section 1-18-4e, is drilling at 1,810 feet. G. E. Jordan's No. 1 Ouachita, Section 17-18-14e, is drilling at 1,750 feet. Eight-inch casing was set at 814 feet at McKenzie and associates' No. 1 McKenzie, Section 6-19-5e. Six-inch casing was cemented at 2,171 feet at Palmer Corporation's No. 2 fee, Section 24-19-14e. Pioneer Oil & Gas Co.'s No. 1 Nolan, Section 17-18-4e, is drilling at 1,250 feet. Southern Carbon Co.'s No. 48 fee, Section 35-19-4e, is drilling at 660 feet. Six-inch casing was cemented at 2,208 feet at Clark Creek Oil Co.'s No. 1 Frost-Johnson, Section 19-23-1e.

Webster Parish

Two more nice producers were brought in in the Cotton Valley area. Magnolia Petroleum Co.'s No. 1 Tiner, Section 21-21-10, was completed at 2,544 feet pumping 125 bbls., 7 per cent salt water, and the Ohio's No. 37 Bodcau, Section 21-21-10, was finished at 2,577 feet pumping 90 bbls. of oil and 10 bbls. of salt water.

Alabama Petroleum Co.'s No. 3-B Robbins, Section 21-21-10, is in 5 feet of sand topped at 2,585 feet with 1,100 feet of oil in the hole waiting for a standard rig and No. 4-B Robbins is rigging. Six-inch casing was cemented at 2,512 feet at Gulf's No. 1 Doyle, Section 21-21-10, and the plug is being drilled out. Louisiana Oil & Refining Corp.'s No. 4 Crichton, Section 21-21-10, is drilling at 2,450 feet. Magnolia's No. 1 Turner, Section 21-21-10, is drilling at 1,814 feet and a derrick is up in the SW cor. SW NE, Section 21-21-10 for No. 2 Turner.

Ohio Oil Co.'s No. 1 Cox, Section 23-21-10, is nearing the mile depth and is drilling in lime and shale at 5,008 feet. Ohio Oil Co.'s No. 3 Holloway, Section 23-21-10, is drilling in lime at 2,350 feet. Smitherman & McDonald's No. 1 Oakley, Section 29-33-11, was not plugged back and is drilling ahead at 3,360 feet. Twelve and one-half inch casing was set at 669 feet at Southern C. O. P. Co. and W. R. Ramsey's No. 1 Munn, Section 1-22-10, and the test is drilling at 950 feet.

Winn Parish

Cherokee Petroleum Co.'s No. 1 Urania, Section 13-11-1e, is shut down in rock at 1,740 feet. Humble Oil & Refining Co.'s No. 1 L. & A., 2,440 feet east and 660 feet south, NW cor. Section 34-10-1w, is a rig. Humble has staked a location for No. 1-B Edenborn, 1,520 feet south and 200 feet east, NW cor. Section 1-9-3w. A derrick is up in the NE SW NE, Section 21-12-3w, for Oliver & Masters' No. 1 Radescich. C. H. Wilson's No. 1 Louisiana Central, Section 24-13-1e, is being delayed at 1,310 feet by a fishing job.

Scattered Wildcats

Triangle Drilling Co.'s No. 1 Hollayfield, Section 32-23-5, Claiborne Parish, is drilling at 1,200 feet. Same operator was running the 6-inch to 4,067 feet at No. 1 Keen, Section 7-19-5, and it stuck at 3,181 feet and was cemented there. In Natchitoches Parish, surface casing was set at 198 feet at J. F. Palmer's No. 1 Edenborn, Section 4-11-6. El Dorado Chief Oil Co.'s No. 1 Rodgers, Section 8-14-3w, Jackson Parish, is a rig. Alden Oil Co. is building a derrick for No. 1 Powell, SE SW NW, Section 13-11-10, Red River Parish. In Sabine Parish, L. M. Emlet's No. 15 Bowman, Section 9-7-12, is drilling at 3,480 feet, and No. 7 is drilling at 900. Emlet's No. 1 Sabine, Section 8-7-13, is a derrick.

GULF COAST

(Continued from Page 56)

The Rio Bravo Oil Co.'s No. 2-P F. Settegast is rigging.

Fort Bend County Pools

At Blue Ridge, the Invincible Oil Co.'s No. 3 is drilling deeper. The Gulf Production Co.'s No. 7-B Blakely is rigging as is Abercrombie and others' No. 1 West-Schenck.

The Gulf Production Co. is drilling Nos. 26 and 28 Davis in the Big Creek Pool and also No. 10 Wheat.

At Orchard, the Gulf Production Co.'s No. 6 Moore is drilling below 3,328 feet.

At Nash Dome, the Rycade Petroleum Corp.'s No. 2 Wisdom is around 4,300 feet and No. 6 Wisdom at 1,895 feet. No. 3 Flessner is drilling below 3,125 feet.

Other Pools

At Spindletop, the Unity Oil Co.'s No. 44 National is drilling around 875 feet. The Seven Oil Co.'s No. 1 Trembly is rigging. The Gulf Production Co.'s No. 186 Gladys is deepening. Barbee's No. 1 Garrick is drilling at 600 feet. The Yount Lee Oil Co.'s No. 5 McFadden, on the southeast side, is drilling around 2,300 feet and No. 4 Gladys, on the north side, at 2,435 feet.

In the Markham Pool, the Rycade Petroleum Corp.'s No. 1 Kountz is around 4,735 feet.

At High Island, the Gulf Production Co.'s No. 5 Smith is at 3,315 feet. The Sun Oil Co.'s No. 8 Lockhart is drilling around 980 feet. No. 8-C Cade is at

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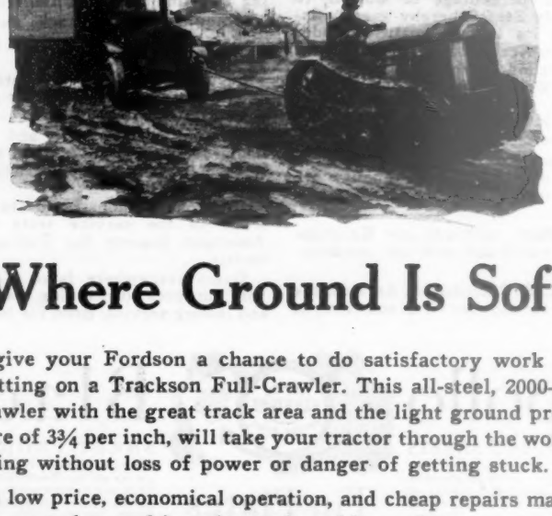

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3,235 feet and No. 10 Cade is around 3,190 feet.

At West Columbia, The Texas Company's No. 22 Arnold is below 3,500 feet.

South Louisiana Pools

In the Edgerly Pool, the Gulf Refining Co.'s No. 31 Bright-Penn is rigging. The Rex Oil Co.'s No. 2 Hunter is drilling around 3,245 feet.

In the Lockport district, Calcasieu Parish, the Vacuum-Gulf companies' joint No. 7 Miller is depeening at 3,975 feet and No. 8 is fishing. A derrick is standing for No. 10, with a location made for No. 11 Miller. No. 1 Fredberg and Wolf is deepening at 4,797 feet and No. 3 Farquhar is drilling below 3,800 feet.

In the Jennings Pool, the Utropal Oil Co.'s No. 1 Clement is at 2,655 feet. E. L. Myers' No. 1 Zeigler is around 1,565 feet. The General Petroleum Co.'s No. 6 Fontent is at 2,165 feet. The Coastal Oil & Fuel Co.'s No. 91 Latrielle is drilling around 1,765 feet. The Gulf Refining Co.'s No. 31 Jennings-Clement is deepening. The Texas Company's No. 1-C Latrielle is around 3,865 feet and No. 95 Latrielle is at 1,875 feet.

The Gulf Pipe Line Co. posts $1.25 for Jennings crude, which is the lowest quotation on any Coastal grade.

The Vinton Petroleum Co. is rigging Nos. 19 Rescue and 28 Gray in the Vinton Pool.

Outside of the defined pools, the Yount-Lee Oil Co. has started No. 9 at Hackberry Island, Cameron Parish, and No. 13 Bishop in Jefferson Davis Parish.

The Rio Bravo Oil Co. set 6⅝-inch casing casing in No. 1 Glenwild, St. Mary Parish, at 3,650 feet.

In St. Martin's Parish, the Rycade Petroleum Corp.'s No. 1 Atachalafaya is drilling around 1,100 feet.

Texas Coastal Wildcats

In Chambers County, W. C. Moore has started No. 4 Blenke, a formation test near Winnie. Mills Bennett is drilling No. 1 Fisher at Barber Hill. N. M. Dunman has a derrick for No. 1 Morris on Cedar Bayou.

In Brazoria County, the Roxana Petroleum Co.'s No. 2 Allen is around 3,520 feet. No. 3 Kroppe is around 655 feet. These tests are about 12 miles south of West Columbia.

At Long Point, in Fort Bend County, the Gulf Production Co.'s No. 8 Davis is at 3,625 feet, with a derrick up for No. 11 Davis.

In Grimes County, Briant and Huber's No. 1 near Piedmont is idle around 1,800 feet. The Newblock Oil Co. is rigging No. 1 Cuthrell near Carlos.

In Hardin County, the Humble Oil & Refining Co.'s No. 2-A Weiss is at 2,000 feet.

In Harris County, Armstrong and others' No. 2, between Peggy Lake and San Jacinto Battlefield, is around 2,455 feet. Seismograph tests are being made north of Brammel.

In Jefferson County, the Gulf Production Co.'s No. 1 Burrell, Fannette Dome, is below 4,500 feet. No. 2 Bordages there is drilling at 2,765 feet. The Houston Oil Co.'s No. 1 Pipkin-Davis is drilling around 2,325 feet.

In Liberty County, the Sun Oil Co.'s No. 1 Moore, at Felcia, is drilling around 2,000 feet, and Campbell and others' No. 1 Brown, at Devers, is a derrick.

In Matagorda County, southwest of Houston, the Gulf Production Co.'s No. 4 Craig, at Hawkins Dome, is around 2,910 feet. No. 1 Sanborn there is below 1,100 feet. No. 1 Parkinson is rigging.

In Orange County, east of Houston, the test at Gum Island is drilling around 3,035 feet.

Both the seismograph and torsional balance are being used on a block of acreage in the southeastern part of Montgomery County. The major companies have adopted a new policy with reference to using these instruments. Instead of blocking up several thousand acres and paying a bonus on it in order to secure the right to make these geophysical tests, the companies now pick out 25 or 50-acre tracts on the sides of the presumed dome. The instruments are set up and explorations made from these tracts as bases. If the tests are satisfactory then the leasers are set to work to secure the intervening territory. This method has the advantage in that it eliminates paying out large sums in the way of bonuses and rentals before the worth of the territory as a prospective saline dome is known.

SOUTHWEST TEXAS

(Continued from Page 52)

at 1,820 feet. No. 32, in Block 2, Survey 15, is drilling at 1,600 feet. No. 33, in Block 30, Survey 12, is drilling at 1,480 feet, and No. 34 has spudded in, and No. 3 (T. P.) Holbien, in Block 25 of Survey 15, is moving in a rig. M. E. Weber has the derrick up for No. 2 Holbien in Block 1, Survey 15.

Medina County

Golden West Oil Co. is drilling at 450 feet in No. 5 Schmidt in the Ina Field and has not completed it as reported last week. No. 6 is a location, 400 feet north of No. 4, and has not spudded in yet. Arnett Oil Co. has started to drill No. 4 Nixon, 300 feet south of its No. 1.

The feature of the week in Medina County is the completion by Henderson & Holden of No. 2 Adams, a bigger gas well than No. 1. They are on the Adams tract in Edmund C. Durst Survey No. 13, and in about the center of the survey. No. 1 is the discovery well of the territory and was completed at 903 feet, gauging a little over 9,000,000 feet of gas. No. 2 is 1,600 feet east and a little south, with total depth of 910 feet and with the drill not through the sand, it gauged 13,000,000 feet of dry gas. Casing is set at 812 feet and there is a sand at 828 feet carrying some gas and the lower gas sand was topped at 905 feet. These two gas wells are doing considerable to stimulate the interest in that territory of Medina County. Eastham & Tarver are drilling on No. 1 Howard in Survey 91, a mile to the east. Off to the northeast several miles, some new wildcats are getting started but immediately in the neighborhood of the Adams gassers geologists have not yet worked the proposition out to their satisfaction.

In the shallow field, 4 miles south of Hondo, where the Medina Oil Co. got a well at 357 feet that pumped around 100 bbls. of oil for a time and is now pumping about 40 bbls., the field has been circled with wells and only two additional small pumpers have been brought in and these at depths different from the discovery well. Medina Oil Co.'s No. 2 Taylor, 300 feet west of the discovery well, is pumping 8 bbls. at 315 feet, and No. 3, located 300 feet north of No. 2, is pumping 5 bbls. at 250 feet. No. 4, located 300 feet south of No. 1, is a dry hole at 360 feet. Golden West drilled two tests to the east without getting anything, and Buchanan drilled one to the north without making a well so the discovery well has been completely circled. Suspicions of some oil men that the big producer at shallow depth was pumping from a cavity full of oil is growing stronger. A 5,000-bbl. steel tank was erected on the lease, and 2,500 bbls. sold to the Southern Refinery at Somerset which has been trucked to the Southern Pacific tracks at Hondo and shipped by rail. The one well has produced around 5,000 bbls. since coming in but the field seems to be limited to it alone. Other tests around it at a little distance are getting discouraged as to the shallow oil and some have been abandoned and rigs moved out.

Among the wildcats in Medina County, Plateau Oil Co. is drilling at 1,515 feet in No. 1 Harrison in Survey 72½, in the southwestern part of the county. Alamo Drilling & Leasing Co. is drilling at 1,475 feet in No. 1 Bendele, a little west of Noonan. Hudson & Johnson, at 1,665 feet, are in the Edwards lime west of Noonan, in No. 2 Christilles. J. R. McCadlin, west of Devine, has completed a water well, and resumed drilling No. 1 Thompson and is down about 100 feet.

Milam County

Alexander-Lyles' No. 1 Seelke, in Milan County north of Rockdale, that got

the top of the chalk at 2,144 feet, is drilling at 2,280 feet in the chalk.

McMullen County

George M. Ball has started a wildcat well on the Kuykendall land in McMullen County, west of Tilden several miles.

CALIFORNIA FIELDS

(Continued from Page 58)

course, reduce the amount of projected new work.

The two ordinances under fire cover the town lot area particularly, although the city license on operating companies, which was raised from $12 to $120 per year, will apply in the older section of the field as well. The license tax was passed, not primarily to restrict new work, but rather as a revenue producer, and because of the small amount involved has not resulted in any general protest. The ordinance, which was supposed to have been enacted as a safety measure to reduce the fire hazards, but which was really passed to restrict promiscuous development work, is a very stringent one. As the matter now stands, the ordinance does not require the erection of steel rigs, although it practically amounts to the same thing, inasmuch as where wooden derricks are put up they must be equipped with adequate sprinkling systems. This very nearly equalizes the cost between wood and steel and, inasmuch as all derricks must be removed within 30 days after completion of the well, steel rigs would be come economical in the long run as they could be used several times.

Emergency Ordinances

The fire ordinance also calls for the installation of adequate extinguishing apparatus and prohibits any open flame within 25 feet of a derrick. Oil spilled on the ground must be removed within 24 hours and sump holes filled up within 10 days after completion of a well. These emergency ordinances were effective immediately upon passage and it is understood that the trustees are contemplating the enacting of another ordinance which will require all wells to set surface casing at 300 feet in order to minimize the danger of blowouts. The sponsors of this legislation favored it as a means of limiting town lot drilling and which it was hoped would prevent overdevelopment. It will apparently accomplish this end but it is a rather inequitable one, inasmuch as the early bird will be protected and permitted to drain adjoining acreage in some instances where single well sites will not be available for development because of the fact that boilers cannot be within 25 feet of a drilling well. In some instances operators may be able to buy sufficient steam to operate but it is logical to assume that one operator will not supply another who is drilling a direct offset.

The attempt to restrict unnecessary and promiscuous drilling in any town lot area is to be commended but any limitations placed upon drilling should be on a equitable basis. The sponsors of the two measures enacted by the City Council at Huntington Beach may later find the present law to be a boomerang. The two ordinances as they stand at present will not absolutely prevent the drilling of single locations as operators can resort to electrical equipment and thus defeat the principal object of the bill. This will, of course, result in a somewhat higher drilling cost and may possibly affect the amount of work in an indirect way, if the territory is not highly productive. If the initial wells come in big, the only advantage gained will be a prolongation of drilling work, as the use of electrical equipment may be economically possible. It is extremely doubtful whether it is advisable to seek legislation of this kind and if the trustees later pass an ordinance requiring the landing of a string of casing at 300 feet their orders might conflict with those of the State Mining Bureau, which department is designated under law to supervise drilling operations. The present situation at Huntington Beach is a rather disconcerting one and, unless the two ordinances now in effect are revised, all operators will face a higher and unnecessary drilling cost.

Inglewood

No. 2 Vickers, the Associated's erratic deep zone well in the Inglewood Field, is not yet on steady production, although it has made several intermittent flows. The company is of the opinion that possibly part of the formation has been mudded off and the pipe perforations clogged up to some extent. It is at present being thoroughly cleaned out in order that a test may be made to determine the potentiality of this sand. No. 9 Cone of the Petroleum Securities, another deep zone project, is experiencing considerable trouble with water and will probably require still further work before a satisfactory water shutoff is effected. The Standard cleaned out No. 18 Baldwin Cienega during the week and returned it to production pumping 280 bbls. of 21.2 gravity oil from 2,310 feet.

No. 13 Callender of the Union at Dominguez has just been listed for completion and it is doing 360 bbls. of 28.9 gravity oil from 3,936 feet after being plugged back from 4,400 feet. The Shell is preparing two new wells, Nos. 31 and 32, on the Reyes lease for production and swabbing operations should get under way within the next day or two.

The Union's No. 7 Rosecrans in the Rosecrans Field was only good for 85 bbls. daily upon completion at 4,699 feet but it will undoubtedly register an appreciable increase after it has been on production for a few days and cleaned itself out. The Barnsdall is making preparations to test out the deep zone and its No. 7 Rosecrans, drilled to 5,726 feet but plugged back to 5,635 feet, will be given a test in the near future. The Marine Oil Corp. carried its No. 34 Athens in this field down to 5,252 feet but, not finding anything worth while at that depth, plugged back to 5,160 feet, from which point it will be given a test. The Superior Oil Co. is considering the advisability of abandoning Nos. 2, 4 and 7 on the Maxwell Community lease and it would not be surprising if permission was requested of the State Mining Bureau to carry out its intention within the next few weeks.

Torrance

The Chanslor-Canfield Midway Oil Co. finished drilling another potential producer in the Torrance Field at 3,616 feet but this well, No. 89 Torrance, will not be ready for a test for another few days. The California Petroleum's No. 1 Churchill started off pumping 120 bbls. daily upon its recompletion after being cleaned out to bottom, 3,539 feet, but it declined a few days later to 30 bbls. daily. The Shell has but one incompleted driller, No. 9 Redondo, at 3,575 feet, and it looks as though the company will refrain from further work in this field upon its completion. The Petroleum Securities is still being delayed with its No. 1 Heights in the Rideout Heights district because of the hard conglomerate formation through which the well is passing at 720 feet. The Pan American, however, is making satisfactory footage with No. 1 Broderick, a short distance away at 2,645 feet. The McCaslin Oil Co. is making preparations to test out a surface showing in No. 1 Patton-Gregg at 650 feet but if commercial production is not secured at this point, drilling will be resumed and the well finished in the shallow zone around the 1,500-foot level.

Montebello

The Standard has just finished No. 66 Baldwin in the Montebello Field at 3,561 feet and, although the well has not yet gotten under way it looks good for 200 bbls. daily. In addition to this well the Standard has four drillers on the Baldwin property and one each on the Temple, Harvey and Howard Smith leases. H. J. Keoughan, trustee for the Continental Oil Co. in California, is reported to be considering the advisability of drilling another well on the Kraemer lease at Richfield, following the successful completion of No. 1, doing 225 bbls. daily. The General Petroleum has not yet started any additional work in the Richfield district, although No. 6 Stern and

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No. 7 Thompson have been under way only a comparatively short time.

The Shell will start swabbing No. 10 Orange in the Fullerton district for production tomorrow and the outlook is good for a fairly satisfactory completion at 4,790 feet. The Shell has five additional drillers in this field, Nos. 11, 12 and 13 on the Orange property, No. 4 Fisher and No. 5 Pico. The Union is running three strings of tools on its Stearns lease and two on the Olinda property. No. 1 Olinda and No. 2 Olinda are of a wildcat nature and, although the former is down 4,215 feet and the latter, 3,150 feet, a productive sand has not yet been ecountered. The Brea Canyon Oil Co. is still held up with a fishing job which developed in its No. 38 while rotating ahead in a hard sand at 4,250 feet. The Fullerton Oil Co. is battling with a water problem in its No. 19-A, drilled to 5,398 feet, but later plugged back to 5,075 feet.

Midway-Sunset

The North American Consolidated finished two new producers in the Midway-Sunset area during the week, both located in Section 30-31-28. No. 30 was a flowing well doing 150 bbls. daily from 3,727 feet, while No. 45 was a pumper making 80 bbls. from 4,375 feet. The Honolulu Consolidated's No. 21 in Section 4-32-24 was a 120-bbl. pumper from 3,577 feet. The Standard put its No. 15 in Section 32-31-24 on the beam at 3,912 feet but it was only good for 85 bbls. of 19.6 gravity oil daily. The Transport Oil Co. is making preparations to redrill and deepen its No. 2 Bush in Section 32-12-23, a former producer at 3,986 feet, in the hope of stimulating production. The Midway Northern spudded in its No. 14 in the same section and this offset to No. 2 Bush is already down 810 feet. The Standard finished a 150-bbl. pumper in the Elk Hills Field when No. 75 in Section 35-30-24 was put on the beam at 2,992 feet and, although the output is cutting approximately 5 per cent, it will probably clean up within the next few days. The Shell has practically completed negotiations for the purchase of the holdings of the Caribu and Record Oil Companies in the Coalinga Field and will, it is believed, take physical possession within a short time.

Ventura

Drilling operations in the Ventura Avenue Field were not productive of any new wells during the past week but it is thought that at least one well will be completed within the next 10 days. No. 11 Lloyd of the Associated got away from the crew a few days ago and ran wild after blowing the tools out of the hole. It sanded up a short time later and the company has decided to allow it to stand as is because of the tremendous gas pressure. When the blowout occurred the well was down 5,236 feet with a string of 8¼-inch landed at 4,235 feet. It is thought that the open hole has been filled up by the blowout and that the well can be salvaged at any time.

Considerable interest attaches to the report that the Associated will not complete No. 18 Lloyd, which has been standing suspended in the southern part of the lease for several months at 5,185 feet. The resumption of work on this hole is of particular interest because of the fact that it is located not far from a parcel of state land on which is located the Ventura School for Girls. It is understood that an offer has been made to lease this property from the state and it is quite possible that some action may be taken if No. 18 Lloyd comes into production as a large flowing well.

The Shell's next producer in this field will probably be No. 6 Edison, now at 5,345 feet, and although the company is running three strings of tools on the Gosnell lease, none of these wells is yet deep enough to pick up the pay. The Bolsa Chica Oil Co. has landed a string of 8⅝-inch in No. 1 Hartman in the north central part of the field at 4,388 feet and will probably resume drilling early next week. G. J. Magenheimer's No. 1 Hartman, due north of this well, is rotating ahead in a sandy shale at 2,020 feet. In the southern part of the field the Petroleum Securities has just recemented No. 1 Willett at 3,941 feet and is drilling ahead in No. 1 Orton, a recent spud, at 610 feet.

Southern California Wildcats

Another instance of the reluctance of oil companies to accept as final the evidence of a dry hole in an area where geologists agree in the opinion that oil should exist, is found in the action of the Petroleum Securities in blocking out a considerable amount of acreage in the Bandini district, which has probably been as thoroughly tested as any area in southern California. The company has officially announced the purchase of 22 acres for a consideration of $176,000, or $8,000 per acre, and the acquisition of a three-year lease on the Bandini estate aggregating 2,000 acres. It is understood that the Petroleum Securities will test out its leased holdings some time before the expiration of this period and in the event that commercial production is not secured, the property purchased and now held in fee will be exploited for industrial purposes. The Oak Ridge, Fullerton and Wilshire Oil Companies spent somewhere around $1,500,000 in wildcatting this territory before quitting. There is ample room on Bandini property just leased by the Petroleum Securities, however, to open up a new field.

The Shell has suspended drilling on No. 1 Menchago up in Brea Canyon at 2,702 feet and the announcement that further drilling is not justified will probably result in an early abandonment. The Union is hauling in material for No. 1 Howland, a wildcat to be drilled west of the Inglewood Field and rig construction will probably get under way within a short time. The Marland Oil Co. is running in a string of 8¼-inch in No. 1 Connelly at Hyde Park and will land it at 5,000 feet. It is reported that it is for protection purposes only and that no showings of importance have been found to date.

The Manhattan Hermosa Beach area is proving quite a magnet for wildcatters and the acquisition of a 50-acre lease by George F. Getty indicates that additional work will be done in the event that either George W. Johnson's No. 1 Martin or the Julian Petroleum's No. 1 Trust show any evidence of commercial production.

Northern California Wildcats

The Marland Oil Co. is rotating ahead in No. 1 Lazard in Section 27-28-20 at 3,580 feet, the present formation being a hard sand. The Union's second survey structure hole, northwest of the Belridge Field on the Theta property, is in a sandy shale at 560 feet. The Milham Exploration Co. has just spudded in No. 1 Hyde at Buttonwillow in Section 17-28-23 and is rotating ahead in a gray sand at 770 feet. The Standard is plugging back its Kettleman Hills wildcat in Section 12-25-19 by stages preparatory to abandoning it and will probably pull out within the next 60 days. No. 1 Vedder of the Shell in the Mount Poso Creek area in Section 9-27-28 is being pushed ahead at 1,912 feet. The Shell has just leased 1,760 acres from the Kern County Land Co. and will test out this acreage which lies south and east of Maricopa some time during the coming summer.

The Associated is still held up with a fishing job at Huron resulting from the loss of several stands of drill pipe which twisted off while the company was rotating ahead at 1,770 feet. Hoyt S. Gale's No. 2 Beardsley at Camarillo is down 3,720 feet and drilling ahead in a brown shale. The Shell reports a hard conglomerate in No. 1 Berlywood in the vicinity of Moorpark and as a result drilling at 3,413 feet is going along slowly. The Pan American is hauling in material and will start rig construction shortly for a wildcat in Monterey County in Section 27-23-13. Shell geologists have concluded that there is reason to believe that commercial production can be secured in the central part of the state and the company is accordingly making preparations to drill a wildcat on the Murphy property in Sonoma County. This wildcat will be located about 3 miles north of H. N. Witt's No. 1 Decker at Petaluma, which showed a little shallow production several months ago.

OKLAHOMA FIELDS

(Continued from Page 44)

13, which is abandoned at 1,900 feet. Petroleum Company and Mosier's No. 13, CSL SW NE, Section 4-16-13, had sand 2,168-70 feet with water and was plugged back to sand 1,965-2,011 feet and is making 1 bbl. Prairie Oil & Gas Co.'s No. 3, CNL SW SE, Section 4-16-13, is dry and abandoned at 2,279 feet. Selby Oil & Gas Co.'s No. 8, CWL NW SE, Section 4-16-13, is making 3 bbls. from sand 2,123-25 feet. Superior Oil Corp has the rig up for No. 5 Cowles, SE cor. SE, Section 6-16-13. J. S. Cotes has spudded No. 5 Techorno, SE cor. NE NE, Section 13-16-13.

Pawnee County

Wasson & West are drilling at 525 feet in No. 1-A, SW cor. NE NW, Section 21-21-8. Mid-Continent Petroleum Corp. is drilling at 450 feet in No. 20, NE cor. SW NW, Section 16-20-7. Prairie Oil & Gas Co. has spudded No. 3, NE cor. SE NW, Section 6-20-8. Minnehoma Oil Co. is drilling at 460 feet in No. 5, CSL NE NW, Section 7-20-8. Selby Oil Co. has spudded No. 7, CWL NE SE, Section 23-20-8. Southwestern Oil Fields Co. has completed No. 17, NW cor. SE NW, Section 24-20-8, for 15 bbls. after a shot of 30 quarts in sand 1,120-40 feet.

Osage County

Winona Oil Co. has a dry hole at 1,998 feet in No. 1, SE cor. NW SE, Section 28-29-9, Keener Oil Co.'s No. 8, SE cor. SW NW, Section 15-29-10, had sand 984-1,015 feet and is making 40 bbls. after a shot of 120 quarts; No. 9 CSL SW NE, Section 15-29-10, had sand 985-1,019 feet and made 45 bbls. after a shot of 120 quarts; No. 10, C S half NE, Section 15-29-10, is drilling at 400 feet.

A. G. Brown and others are drilling at 500 feet in No. 10, CSL NE SE, Section 15-29-11. Osage Development Co.'s No. 40, SW cor. NE NW, Section 35-29-11, had sand 900-947 feet and made 30 bbls. after a shot of 220 quarts. A. D. Simons has completed No. 6, NE cor. NE, Section 36-29-11, for 5 bbls. after a shot of 40 quarts in sand 979-1,006 feet. Washa-she Oil Co.'s No. 2, SE cor. NW, Section 33-28-11, is dry and abandoned at 1,113 feet. Duffield & Howard have completed No. 1, NW cor. NW, Section 34-28-11, for 10 bbls. in sand 967-996 feet after a shot of 80 quarts.

The Roxana Petroleum Corp. and A. D. Morton have completed No. 1, NW cor. NW, Section 1-26-7, for 15 bbls. from sand 2,485-2,503 feet. New England Oil & Pipe Line Co. has a rig up for No. 1, SW cor. NW SE, Section 31-26-8. Tuloma Oil Co.'s No. 3, CSL SW, Section 25-27-11, had sand 995-1,035 feet and made 15 bbls. after a shot of 185 quarts. Kanup and others have a dry hole at 1,381 feet in No. 1, NE cor. NW NE, Section 20-26-12. Shelton & Moore have a rig built for No. 9, SW cor. NW SE, Section 32-26-12.

Carter County

Humble Oil & Refining Co.'s No. 1, NW cor. SW SE, Section 1-4s-3, is dry and abandoned at 4,005 feet. In the Brock Pool, the Amerada Petroleum Corp.'s No. 23 Baptiste, CNL SW SE, Section 20-5s-1, is a new rig. No. 25 Baptiste, NE cor. NW SE, Section 20-5s-1, had sand 1,337-80 feet and made 75 bbls; the rig is up for No. 27 Baptiste, NW cor. SE NE, Section 20-5s-1. Schermerhorn and others have cemented the surface casing in No. 1, NE cor. NW NW, Section 24-5s-1. Amerada Petroleum Corp. has a dry hole in No. 17 Criner, C N half NE SW, Section 28-5s-1, which is abandoned at 1,441 feet; a machine is in for No. 14, Blow, C N half SE NW, Section 28-5s-1.

Magnolia Petroleum Co. has completed No. 2, SE cor. NW SW, Section 34-1s-3w, for 200 bbls. from sand 2,828-37 feet. Schermerhorn and others have built a rotary rig for No. 1-A Syker, SE cor. NW NW, Section 34-1s-3w. Prairie Oil & Gas Co. and Franklin's No. 1, NE cor. NW, Section 3-2s-3w, had sand 2,384-2,411 feet and swabbed 140 bbls. the first 24 hours and is now making 115 bbls. on the swab; No. 2, SE cor. NE NW, Section 3-2s-3w, is drilling at 150 feet. Humble Oil & Refining Co. has a rig on the ground for No. 1 Dingwell, NE cor. NE, Section 4-2s-3w. Coline Oil Co. has a rig on the ground for No. 1 Pansley, SE cor. SW NW, Section 6-2s-3w. Roxana Petroleum Corp.'s No. 1, SW cor. SE, Section 6-2s-3w, had sand 1,628-38 feet and is pumping 27 bbls.

Skelly Oil Co. has a rotary rig up for No. 2 Hardy, NW cor. SW, Section 8-2s-2w. Wirt Franklin has a rig on the ground for No. 1-A Moore, SE cor. NE, Section 18-2s-2w. Merrick-Kirk have completed No. 13, C NE NW NE, Section 31-2s-2w. Broken sand was 2,262-2,870 feet and the well is pumping 5 bbls. Merrick and others' No. 1, SW cor. NE NE, Section 8-3s-2w, had broken sands 2,721-90 feet and pumped 47 bbls.

Garvin County

Empire Gas & Fuel Co. has moved in tools for No. 1 Wallace, SE cor. NE NE, Section 27-2-1w.

Marshall County

United 8 Oil Co. has a machine in for No. 6 Arbuckle, C S half SE SE, Section 24-5s-5.

Hughes County

In the Papoose Pool, the Mid-Continent Petroleum Corp.'s No. 9 Alexander, SW cor. NW NW, Section 3-9-9, had lime pay 3,798-3,802 feet and is pumping 35 bbls of oil and 10 bbls. water and is not completed. Josey Oil Co. has a rig on the ground for No. 2 Manley, NE cor. SW NE, Section 22-9-9. Phillips Petroleum Co.'s No. 1, NE cor. SE, Section 27-9-9, in the Furhman Pool had sand 3,389-95 feet and made 100 bbls. on the swab. Furham and others' No. 1, NW cor. SW SW, Section 21-9-10, is spraying 30 bbls. daily from sand drilled deeper to a total depth of 3,116 feet. Brock, Letcher and others have a rig on the ground for No. 1, C NW NW, Section 22-8-9. Magnolia Petroleum Co. has a rig up for No. 1 McCroy, SE cor. NE, Section 29-8-9.

In the Yeager Field, the Independent Oil & Gas Co. and others have completed No. 2, NW cor. SE NE, Section 18-8-10. Sand was 3,485-89 feet and the well is making 15 bbls. after a shot of five quarts. W. R. Ramsey's No. 2, NW cor. NE SE, Section 19-8-10, had sand 3,470-79 feet and is completed for 25 bbls on the pump.

KANSAS FIELDS

(Continued from Page 44)

State Oil Co. has completed No. 2, SW cor. SE NW, Section 32-22-11. Sand was 1,955-2,020 feet and after a shot of 140 quarts the well made 300 bbls; No. 10, SW cor. NE NW, Section 32-22-11, made 200 bbls. after a shot of 100 quarts in sand 1,940-2,005 feet. Lamar & Hane's No. 1, NE cor. SE SW, Section 3-22-12, is dry and abandoned at 1,847 feet.

Fisher & Lauck's No. 2, SE cor. NW NW, Section 4-22-12, is good for 200 bbls. after a shot of 180 quarts in sand 1,869-1,917 feet; the rig is on the ground for No. 3 Frankhouser, NE cor. SW NW, Section 4-22-12. Lamar & Hayes have spudded No. 1, NW cor. SW SE, Section 4-22-12. Mid-Continent Petroleum Corp. had rigged up No. 1 Frankhouser, NE cor. SE SW, Section 4-22-12.

Simmons and others have completed No. 5, NW cor. SE NW, Section 4-22-12, for 250 bbls. after a shot of 200 quarts in sand 1,877-1,923 feet; the rig is on the ground for No. 7 Frankhouser, SW cor. SE NW, Section 4-22-12, and the rig is up for No. 7 Frankhouser "B," SW cor. NW SE, Section 4-22-12.

Phillips Petroleum Co. has the rig up for No. 3 Crogur, NE cor. SE NW, Section 4-23-11. White Eagle Oil Co.'s No. 1, NW cor. NE, Section 4-23-11, is dry and abandoned at 1,950 feet.

Virgil Pool

In the Virgil Pool, Henderson & Holden have a rig on the ground for No. 1 Ball, SE cor. NW, Section 19-22-13. Peerless Oil Co. has a failure in No. 1 C N half S half SE, Section 25-22-13, at 1,770 feet. William McDougall has a machine in for No. 1 Luthi, NE cor. NW SW, Section 2-23-13. Haverhill Petroleum Co.'s No. 5, NE cor. NE,

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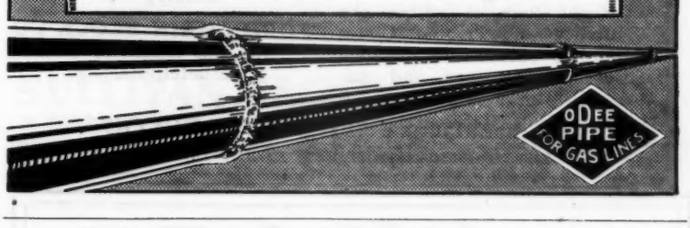

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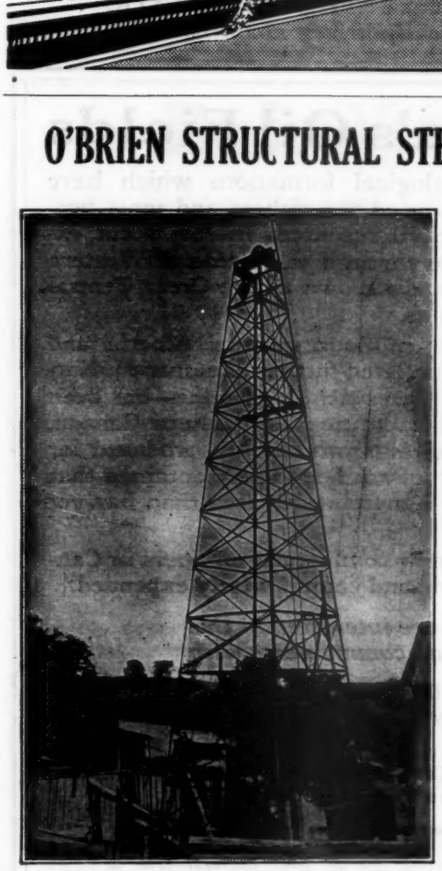

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Chief Commissioner

Section 9-23-13, is good for 50 bbls. after a shot of 120 quarts in sand 1,546-92 feet, and No. 6 Imthurn, CNL NW NE NE, Section 9-23-13, is spudded. Mid-Continent Petroleum Corp.'s No. 2, NW cor. NE NE, Section 28-23-13, had sand 1,694-1,718 feet and made 12 bbls. after a shot of 50 quarts; a machine is in for No. 11 Dahlinger, SW cor. NE NE, Section 29-23-13. Roxana Petroleum Corp.'s No. 7, NW cor. SE NW, Section 34-24-9, had sand 2,228-2,303 feet and made 90 bbls. after a shot of 125 quarts. Roth, Faurot and the Mission Oil Co.'s No. 10, NE cor. NW, Section 1-24-9, had sand 2,307-57 feet and made 20 bbls. after a shot of 100 quarts. Elwell and others have a rig up for No. 1 Hanley, NW cor. SE SE, Section 19-25-10.

Butler County

Phillips Petroleum Co. has a rig on the ground for No. 1 Sickles, SE cor. NE NE, Section 12-23-6. Manhattan Oil Co.'s No. 2, SW cor. SE SW, Section 24-23-8, is drilling at 600 feet; Mission Oil Co.'s No. 10, NE cor. SW NW, Section 24-23-8, is completed for 40 bbls. after a shot of 20 quarts in sand 2,504-21 feet. Manhattan Oil Co. has the rig on the ground for No. 13 Scott, SE cor. SW NE, Section 25-23-8, and No. 22, SE cor. SE, Section 10-23-9, is good for 75 bbls. after being shot with 140 quarts in sand 2,277-2,362 feet; No. 23 Green, NE cor. SE SE, Section 10-23-9, is rigged up.

Empire Gas & Fuel Co. has the rig up for No. 164 Wilson, NW cor. SW NW, Section 7-25-5; No. 87, SE cor. NW NW, Section 28-25-5, is completed for 15 bbls. after a shot of 15 quarts in sand 656-673 feet; No. 30 Pinney, SE cor. NW NW, Section 29-25-5, is dry at 762 feet; No. 31 Finney is drilling at 245 feet; No. 32 Finney is completed in sand 565-580 feet and made 30 bbls. after a 10-quart shot; No. 31 Stapleton is drilling at 625 feet and is located NE cor. SW SE, Section 29-25-5; a machine is in for No. 25 Moler, CEL SE NW NW, Section 32-25-5; the rig is up for No. 73 Stokes, NE cor. SW NE, Section 33-25-5; No. 19 Boyes, SW cor. NE SW, Section 9-26-5, is a rig, and the rig is built for No. 71 Koogler, NW cor. SE SW, Section 17-26-5.

White Eagle Oil Co. has completed No. 4, SE cor. NE SW, Section 27-26-7, for 100 bbls. in sand 2,139-68 feet; the rig is on the ground for No. 1 Dedrick, SE cor. SW, Section 8-27-6; Flack and others have rigged up No. 4 Tobler, SE cor. SW SE, Section 22-27-7. Amerada Petroleum Corp.'s No. 5, NW cor. SE NW, Section 27-27-7, is good for 150 bbls. after a shot of 100 quarts in sand 2,714-58 feet; the rig is up for No. 7 Truesdale, NE cor. SW NW, Section 27-27-7. The Dixie Oil Co. has spudded No. 3, SW cor. NE SW, Section 27-27-7; and the rig is up for No. 4 Truesdale, NW cor. SE SW, Section 27-27-7. Phillips Petroleum Co.'s No. 1 Phillips, SE cor. NW NW, Section 27-27-7, is spudded. Tidal Oil Co. has a dry hole at 3,265 feet in No. 1, NE cor. NE, Section 31-27-7. John Rodgers has completed No. 5, SW cor. NE NE, Section 33-27-27-7, for 100 bbls. after a shot of 100 quarts in sand 2,740-2,785 feet; the rig is on the ground for No. 8 Laughlin, SW cor. SE NE, Section 33-27-7.

Phillips Petroleum Co. has rigged up No. 1 Pettit, SE cor. SE, Section 17-28-6. Magnolia Petroleum Co.'s No. 1, NE cor. NE, Section 20-28-6, is completed for 90 bbls. oil and 10 bbls. water from sand 3,138-43 feet; the rig is on the ground for No. 2 Pettit, NW cor. NE NE, Section 20-28-6.

Kingman County

Harwood & Winters have a rig up for No. 1 Lindholm, C NE, Section 22-28-5w. Marland Oil Co. has a rig in for No. 1 Pagett, NE cor. SW, Section 11-28-6w. Phillips Petroleum Co. has a rig on the ground for No. 1 Gillam, SW cor. NE NW, Section 21-29-9w. Hawes & Smith have spudded No. 1, C NW, Section 35-30-9w.

Rice County

Phillips Petroleum Co. has built a rig for No. 1 Walstein, NW cor. SE, Section 2-21-6w. Prairie Oil & Gas Co. is drilling at 3,100 feet in No. 1, SE cor. SW NE, Section 34-20-6w.

Harper County

Bu-Vi-Bar Petroleum Co. has a rig up for No. 1 Caton, NE cor. SW SW, Section 22-34-6w.

Reno County

Mississippi Valley Oil Co. has a rig up for No. 1 Roxroad, C NE, Section 36-24-7w.

Lincoln County

Red Bank Oil Co. has spudded No. 1 Brown, NE cor. SW, Section 35-10-10w.

Chautauqua County

Foster and others have spudded No. 2 McNoun, C NW SE, Section 31-32-10. Skow Brothers have a machine in for No. 1 Burch, SE cor. NW, Section 33-32-11. Leighty and others' No. 1, SE cor. SW NE, Section 20-34-9, had sand 1,776-85 feet and is making 25 bbls. naturally. Trees Oil Co. has spudded No. 1 Townsend, SW cor. SE NE, Section 20-34-9.

Cowley County

Southwestern Petroleum Co.'s No. 11, NW cor. SE NE, Section 6-31-6, had broken sand 2,842-70 feet and was shot with 100 quarts. It is making 30 bbls. oil and 30 bbls. water. D. B. Golden's No. 1, NE cor. NW, Section 28-30-8, is dry and abandoned at 3,142 feet.

The Carter Oil Co. has spudded No. 10, SW cor. NE SE, Section 19-32-3. Marland Oil Co. and Brady have a dry hole in No. 2, NE cor. NW NE, Section 24-33-2, at 3,292 feet. Barnsdall Oil Co., Independent Oil & Gas Co. and Marland Oil Co. have spudded No. 12, NW cor. SE NW, Section 29-33-3. Buckeye Oil Co. has spudded No. 8, SW cor. NE SE, Section 25-32-4. Empire Gas & Fuel Co. is drilling at 350 feet in No. 3, SW cor. NW NW, Section 3-32-5.

Elk County

Pure Oil Co.'s No. 6, NE cor. SW NW, Section 13-31-10, had sand 1,330-42 feet and made 40 bbls. naturally. Barge & Wilson's No. 1, SW cor. NW, Section 21-31-10, is dry and abandoned at 1,640 feet. Theta Oil Co.'s No. 1, NW cor. NW, Section 26-31-10, had sand 1,630-39 feet and made 25 bbls. oil and 50 bbls. water. Manhattan Oil Co. has a dry hole at 1,822 feet in No. 1, CSL NW NW NW, Section 11-30-11. Theta Oil Co. has spudded No. 2, NE cor. SW, Section 3-30-12.

Sumner County

Roxana Petroleum Corp. has spudded No. 1 Churchill, NE cor. SW, Section 25-31-2.

Greenwood County

Empire Gas & Fuel Co. has the rig up for No. 7 Atyeo, NW cor. SE NW, Section 6-22-10. Theta Oil Co. has built the rig for No. 10 Pixlee, NE cor. SW SE, Section 8-22-10, and for No. 11 Pixlee, NE cor. SE SW, Section 8-22-10, and also for No. 12 Pixlee, SW cor. NE SW, Section 8-22-10. Prairie Oil & Gas Co.'s No. 1, SE cor. NW NW, Section 12-22-10, is making 550 bbls. after a shot of 240 quarts in sand 2,013-97 feet, and the rig is built for No. 2 Fletcher, NE cor. NW NW, Section 12-22-10, and for No. 3 Fletcher, NE cor. SW NW, Section 12-22-10. Syndicate Oil Co. is rigging up No. 4 Austin, NE cor. NW, Section 12-22-10. Sinclair Oil & Gas Co. has completed No. 38, SE cor. NW SE, Section 19-22-10, for 150 bbls. in sand 2,295-2,355 feet after a shot of 30 quarts; the rig is on the ground for No. 40 Browning, C W half W half SE, Section 19-22-10. Tidal Oil Co. has completed No. 3, CWL W half NW, Section 29-22-10, for 200 bbls. after a shot of 180 quarts in sand 2,431-2,510 feet. Sheedy and others have the rig on the ground for No. 8 Green, NE cor. SW NW, Section 11-23-9. Roth, Faurot and the Mission Oil Co. have built the rig for No. 57 Thrall, SW cor. SE SW, Section 28-23-10. Empire Gas & Fuel Co. is drilling at 300 feet in No. 5 Daby, SE cor. NW SW, Section 14-22-11.

Ritchie & Moore have spudded No. 5 Lindamond, NW cor. SE, Section 19-24-11. Ward McGinnis has spudded No. 4, NE cor. SE NW, Section 30-24-11. Prairie Oil & Gas Co.'s No. 4, CSL SE NW SE, Section 16-24-13, is dry and abandoned at 1,915 feet. Charles Chris-

ty's No. 3 Pussy, CSL SE SW SE, Section 31-24-13, is drilling at 650 feet.

Hiatt & Durham have rigged up No. 1 Hodgson, SW cor. SE NW, Section 27-26-9. Smith & Vaughn have spudded No. 2 Duke, NW cor. NE, Section 27-26-9.

Woodson County

The Marland Oil Co. and Christy have completed No. 9, SW cor. NE SW, Section 23-23-13. Sand was 1,680-1,700 feet; the well was shot with 170 quarts and made 130 bbls. Darby Petroleum Co. is drilling at 400 feet in No. 1 Schankie, SE cor. SW NW, Section 8-22-14.

Chase County

Preston & Pasewalk have a rig up for No. 2 Lippe, SW cor. SE, Section 25-18-6.

CALIFORNIA MARKETS ARE MARKING TIME

LOS ANGELES, Calif., May 8.—The oil market appears to be marking time. No change of any importance occurred during the week. While the local demand for motor gasoline is satisfactory, continued unsettled weather seems to be delaying the heavy summer demand. Preliminary figures from the California State Board of Equalization show an increase in consumption of more than 14 per cent for the first quarter of 1926 over the same period last year. This increase is considered quite satisfactory by marketers and a record demand is expected this summer.

Only one tanker of gasoline left Los Angeles Harbor for the Atlantic Seaboard during the week. It was loaded with about 93,000 bbls. of motor gasoline. According to figures of the Bureau of Mines covering foreign shipments for 1925 from Los Angeles and San Francisco, 3,192,733 bbls. of gasoline were taken in this trade and over 50 per cent was consumed by Great Britain, Australia, New Zealand and China were the next three largest purchasers of California gasoline in the order named.

Natural gasoline prices are showing signs of resuming strength. One major oil company has contracted for the entire output from several of the largest natural gasoline plants in Southern California at 2 cents under the service station price of motor gasoline (tax excluded). The contract is to run for one year. Spot sales of natural gasoline are not commanding as high a price, but it is reasonable to expect here, too, prices will strengthen shortly.

Specifications are being prepared for an additional warehouse and wharfage at Los Angeles Harbor to handle the increased shipments of cased kerosene and gasoline. This trade assumed such large proportions the harbor authorities finally agreed to install added facilities which the oil companies have been seeking for a long time. Although shipments of cased kerosene are somewhat lighter right now, local marketers expect this business to show a steady growth.

PAN-AMERICAN TO GUIANA

NEW YORK, May 8.—Pan-American Exploration Co., operating subsidiary in South America of the Pan-American Petroleum & Transport Co., has closed a contract for exploration of a 1,000,000-acre concession of the Mexican Panuco Oil Co. in British Guiana. Examination of the property will begin in 60 days and the Pan-American, after satisfactory completion of the work, has agreed to operate about 250,000 acres of the concession. Geologists are being sent from Venezuela.

SANTA FE OIL PROFITS

The 1925 earnings of the Atchison, Topeka and Santa Fe Railway Co.'s oil properties—the Chanslor-Canfield-Midway Oil Co. and the Coline Oil Co. were about $6,390,000 after all charges. Of this amount the Santa Fe received $3,000,000 in the form of dividends. The balance was apparently reserved for development and perhaps for the purchase of new acreage. These companies, whose entire stock is owned by the Santa Fe, provide the road with a good deal of its fuel requirements.

GERMANY BUYS MORE OIL

In all cases the percentage of principal petroleum products imported into Germany from the United States has increased since 1913, the gain varying from 12 per cent in the case of kerosene to 400 per cent for heavy benzine, while the share of Rumania, Galicia and Russia, which before the war was considerable, has greatly declined.

GAIN IN EAST COAST RECEIPTS FROM SOURCES OUTSIDE GULF PORTS

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, 30 Church St., New York

NEW YORK, May 10.—Receipts of crude and refined oil by tanker at Atlantic ports during April are estimated at 17,034,000 bbls., a daily average of 564,000 bbls., compared with 18,435,000 bbls., a daily average of 592,000 bbls., in March. March was a high record month. April, 1925, receipts totaled 16,044,000 bbls., or 533,000 bbls. daily.

The following table shows receipts for April, 1926, March, 1926, and April, 1925, from the various sources (in barrels):

	April, 1926	March, 1926	April, 1925
Baton Rouge and New Orleans	2,700,000	1,868,000	2,159,000
Port Arthur, Sabine and Beaumont	4,104,000	5,277,000	3,884,000
Texas City, Houston and Galveston	3,060,000	2,736,000	4,636,000
Gulf Coast	9,864,000	9,880,000	10,679,000
Pacific Coast	2,787,000	3,021,000	2,338,000
Mexico	3,819,000	4,720,000	2,845,000
Other imports	564,000	814,000	182,000
Total	17,034,000	18,435,000	16,044,000

The receipts for April show no radical change from March or April, 1925. Receipts from the Gulf Coast were almost the same as for March this year, although more was taken from the Baton Rouge and Houston districts, and less from the Port Arthur district.

Receipts from the Pacific Coast and imports during April were smaller than in March but larger than in April last year.

The daily average receipts are shown in the following table (in barrels):

	April, 1926	March, 1926	April, 1925
Baton Rouge and New Orleans	88,000	61,000	72,000
Port Arthur, Sabine and Beaumont	135,000	168,000	125,000
Texas City, Houston and Galveston	103,000	88,000	153,000
Gulf Coast	326,000	317,000	353,000
Pacific Coast	92,000	97,000	78,000
Mexico	126,000	152,000	95,000
Other imports	20,000	26,000	6,000
Total	564,000	592,000	532,000

One interesting tendency in shipments appears in the gain in receipts from sources other than the Gulf Coast in April of this year, as compared with the same month last year. Although total daily average receipts in April were larger than in April, 1925, receipts from the Gulf Coast declined from 353,000 to 326,000 bbls. daily. Receipts from the Pacific Coast increased from 78,000 to 92,000 bbls. daily. Imports from Mexico jumped from 95,000 to 126,000. Imports from other sources (South America and Trinidad) gained from 6,000 to 20,000 bbls. daily.

This trend is of vital importance to the American oil business, especially to producers in the southwest, who depend so largely on the Atlantic Seaboard refiners for their market for crude and surplus refined products.

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Sullivan Portable Compressors are driven by direct connected Buda 4-cylinder gasoline engines. They are available with steel wheels, rubber tires, trailer truck or skid mounting.

"WK-314," "V" Type, 4-cylinder Compressor. Two sizes, 220 and 320 cu. ft.

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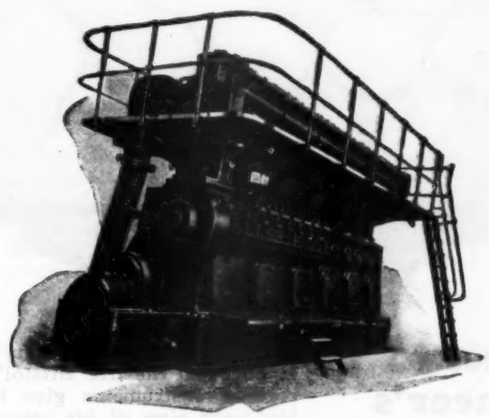

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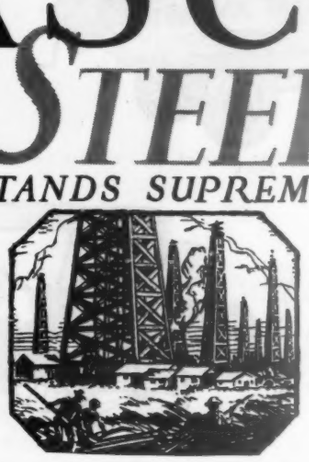

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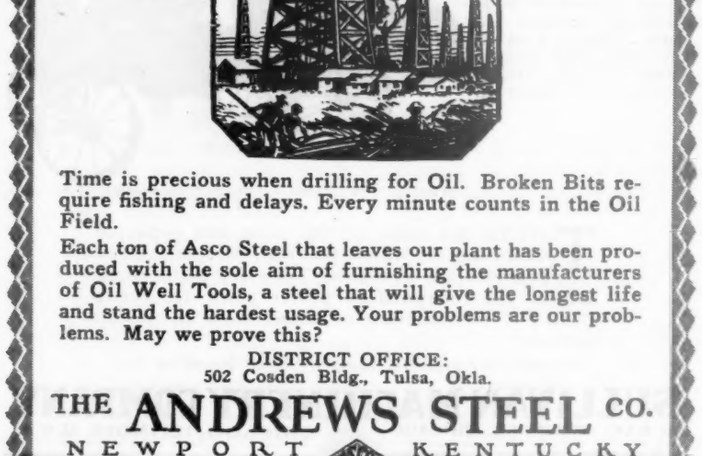

The refinery engineer's "conning tower"

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FOR 36 YEARS MAKERS OF

BRISTOL'S RECORDING INSTRUMENTS

EMPHASIZES DESIRABILITY AND NEED FOR INDUSTRIAL SOLIDARITY

By D. E. Buchanan*

The position in which I am placed is rather a difficult one—that of a novice presuming to elaborate upon the words of a master, concerning his chosen profession. Mr. Boyd has covered in a most thorough manner, not only the desirability, but the need for industrial solidarity.

He makes one point in particular that I believe I am justified in recalling for your special attention. That is, the thought that this association has in the past and can in the future, solve problems and work out improvements pertinent to the natural gasoline industry alone, which the institute cannot hope to handle. He has given you a very clear picture of the motives behind the formation of the American Petroleum Institute and the principles under which its work is carried on. Many of us carry active memberships for our companies in three or four oil trade associations and it is quite natural that we should ask ourselves, or be asked by our directors—"Are all these associations absolutely essential and are we justified in supporting them financially and with our time and effort?" Anyone who makes an impartial appraisal of the accomplishments of this association over the past five years must certainly answer in the affirmative.

In making this statement I am not moved by sentiment. It is not because of the fact that I happened to be present at the formation of this association. not because I am a member of the board of directors, nor because the membership has in the past honored me with the presidency, but because I have had occasion to view at close range the work that has been done and the improvements that have been worked out for the natural gasoline industry. I lay at the feet of this association no small part of the credit for the position natural gasoline occupies in the petroleum world today, which you will all admit has changed somewhat since the birth of the association.

It has also been my pleasure to be more or less closely identified with the work of the American Petroleum Institute, the Mid-Continent Oil & Gas Association and the Western Petroleum Refiners Association during this five-year period, and it is a pleasure to say here that they have all functioned in a creditable manner, the institute in matters of general concern to the industry as a whole, the Mid-Continent Oil & Gas Association in matters pertinent to the production of oil, and the Western Petroleum Refiners Association concerning itself with the problems of the refiner. It seems to me that all these associations have really got down to work, and that the best minds of the industry have, through these associations, given most freely of their talents toward the solution of problems pertinent to their particular branch of the industry and we can certainly say this of the Association of Natural Gasoline Manufacturers.

Value of Associations

I believe the feeling is general among the officers and members of this association that our relationship to the institute should be something akin to the relationship of the local chambers of commerce to the Chamber of Commerce of the United States; the local organizations directing their efforts primarily toward matters that concern the prosperity and well being of their respective communities, but cooperating with and throwing their weight behind the United States Chamber in matters of national consequence.

I could take up considerable of your time were I to attempt to point out to you specifically the benefits that have accrued to the Natural Gasoline Association through concerted effort in this association, but it is not necessary because the accomplishments are well known to the membership and quite generally understood by nonmember manufacturers. Mr. Boyd has frankly told you that these things could only have been done by an association interested primarily in our particular branch of the business and in this connection I was glad to hear his remarks to the effect that we had been in the past and would be in the future, of considerable assistance to the institute and therefore the industry as a whole in helping to solve the industry-wide problems of tomorrow.

During the war when manufacturing and selling was more by grace of general conditions than by merit, interest in trade associations of all kinds lagged. That, however, was only to be a temporary phase in the development of trade associational work, and today we are definitely in the opposite phase—one of renewed interest in association work, mainly because of the increasing difficulty of doing business on a profitable basis.

The history of the legitimately formed and conducted association is, to use the words of our Secretary of Commerce, Herbert Hoover, "That it has contributed greatly to the improvement of business morals and practices, has cheapened production and distribution processes, has improved working conditions, has enabled the whole commercial public to form safer judgment of its future policies. It has even contributed to the advancement of our foreign commerce and generally has interested itself in our economic welfare." He admonishes us that these services should be preserved and even better organized.

Modern Necessity

The trade association is recognized as a necessity in modern industry. The prevention of business anarchy lies in some such cooperation. No one can successfully question either the legality or the beneficial results both to the general public and to the members of an industry flowing through a trade association, through the adoption of uniform terms, specifications, standardization of equipment, materials, products and processes and from numerous other services such as an association may render in matters affecting the common interest of its members as a whole. The laws of the land prohibit, and wisely so, any agreement or understanding, express or implied, looking either to direct fixing or influencing of prices, or to fixing or regulating the volume of production so as to affect prices, or to the apportionment of territory between its members, or to curtailing or restricting free competition and all wisely conducted associations will scrupulously avoid activities in these directions. The entire field of common effort is left, however, and it is here that the association of today finds its greatest service.

If I might be pardoned, I would point out here two cardinal legitimate functions of trade associations both of which are progressive and have nothing whatever to do with prices beyond an intelligent understanding and improvement of the cost of production on the basis of cost principles.

First: Improve and perfect the processes of manufacture and production, eliminate waste and utilize the by-products.

Second: Understand and improve the present market, study and develop new markets and keep abreast of changing market demands.

There is also a great field for this, as well as all trade associations, in connection with the supply of raw material and the determination of a price and conditions of purchase at all times adequate and fair to all concerned.

Our industry is growing by leaps and bounds, more rapidly than could rationally have been prophesied a few years ago; however, it requires but a simple calculation to determine that we have only kept pace with the increase in motor fuel consumption and only by expanding in this manner have we been able to supply the needs of the refiners of the country.

Future years will no doubt see steady

*Before Association of Natural Gasoline Manufacturers.

increases in gasoline consumption and consequent increase in the demand for our product. That extra demand will be met and satisfied as it always has been by the oil men of the country, and by this line of reasoning it requires no particular vision to picture the natural gasoline industry in a very few years many times larger than today.

Generally speaking, and in comparison with other products of petroleum, we have enjoyed a wholesome demand for the commodity we manufacture, indicating that although we have increased our production by enormous percentages, we have not yet reached the point of saturation. Improved refining methods and processes and the public demand for motor fuel of high quality assures us of a fair relative market price so long as we do not produce more than is required to enable the refiners to satisfy the demands of the market.

In this age of highly specialized products and manufacturing processes, we will not retain our place in the petroleum world if we are not able to perfect our processes and improve our product to keep pace with the advance of modern industry. We cannot cling to antiquated and wasteful methods and hope to compete in the markets of tomorrow. Here, our association can and will, if properly supported, be of valuable assistance to us.

We read of many purported substitutes for motor fuel and as we know something of the research work that is being carried on in an effort to develop a synthetic product, one that will give us as good or better results at less cost. While apparently none of these substitutes threaten the security of our investments at this time, we cannot be unmindful of this tendency and we must, therefore, leave nothing undone to produce a better product than heretofore on a cost level that will enable us to meet the constantly changing economic conditions.

I have heard the statement made that some of the other oil trade associations were in position to do anything for the benefit of the natural gasoline industry, that the Association of Natural Gasoline Manufacturers could do. Believe me, I am not detracting one iota from the credit I freely give these other associations when I say this cannot be so. I say further that the natural gasoline industry should not expect them to carry the burden of the work necessary for the improvement of conditions wholly within the natural gasoline industry and that it is only when the matter at hand concerns jointly the branch of the industry which the other associations represent, or in the case of the institute the petroleum industry as a whole, that we should expect help and I think I know enough about the other associations to justify the statement that when we do need help we will receive, at least, as freely as we give under reverse conditions.

The help and friendly cooperation we have in the past received from our sister associations and from the institute is to my mind one of the best indications that the industry as a whole is realizing more every day the need for industrial solidarity.

Group Effort

Our business is too large; it is of such great importance to the future of the petroleum industry as a whole, and we have too many millions of dollars invested to entrust our associational work to any other body and depend on their interest in our behalf to protect us.

In the final analysis, a trade association is only a group effort for a group purpose that is vital to the permanent success of its line of business or industry. It likewise has its group responsibility to itself, to its government which protects its members and to humanity.

We may accept the assurance of the best authorities of our land that so long as trade associations recognize these principles they are desirable, yes, necessary, and are to be encouraged and fostered.

The development of commerce in all commodities and the recession of the frontier in all lines of trade have turned business back upon itself. When the field of expansion is apparently without limit, and we of the natural gasoline industry can remember such periods, the idea has always been quantity production. When definite limits are in sight, the efforts of commerce and industry are turned inward and the idea of quality production takes the throne.

Here again a well organized association can function to the benefit of all concerned in pointing out to its members the changing conditions and assisting in the necessary readjustment to the new order of things.

Perfection in manufacturing and marketing methods will necessarily attract the attention of the best business minds of the country. They are vital problems. Improvements in these lines mean reduction in the cost of production.

Reduced costs are a distinct advantage to business and not only reward the effort but place a premium on the technical and intellectual skill of the individual concern.

The trade association is the only means whereby men in commerce and industry can come together voluntarily for solution of their common problems. In the trade association they get together on a basis of democracy and work for the solution of these problems which are common to all.

Outstanding Development

When the time comes to review it from a historical standpoint, the development of trade associations during the present decade will probably be one of the outstanding features of the industrial history of the period.

True, in some cases, this development has been accomplished by abuses and in still other cases by the pursuance of methods probably well intentioned, but at variance with the laws regulating commerce and industry and for that reason have been declared illegal by the courts. Nevertheless, the trade associations properly organized and conscientiously conducted are exerting an ever stronger influence upon the business life of the country, and the effort being put into the Association of Natural Gasoline Manufacturers has, we believe, entitled it to a place among those associations which have been of real tangible service to its members, the industry and the public.

LIGNITE NOW USED AS FUEL FOR LOCOMOTIVES

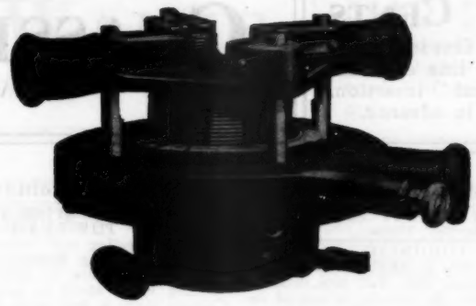
HOUSTON, Tex., May 8.—Officials of the International & Great Northern Railroad, now a part of the Missouri Pacific system, say the use of lignite as fuel for locomotives has passed the experimental stage and more locomotives will be equipped to use it. One lignite burning locomotive is now in use on the heaviest grades on the system between Taylor, Tex., and San Antonio, pulling a freight train. Two more are being equipped.

A number of lignite deposits are located along the I. & G. N. between Houston and Palestine from which the needs of the road can be secured. The locomotives are equipped with a specially designed firebox and grates and an automatic stoker. The arrangement is such that the accumulation of clinkers is avoided. This was the greatest objection to the use of lignite.

The officials say the cost of burning lignite is less than fuel oil.

TEXAS FRANCHISE TAX

AUSTIN, Tex., May 8.—The Supreme Court of Texas, by denying application of Investment Securities Co. of Texas sustained the position taken by Secretary of State Mrs. Emma G. Meharg of collecting franchise taxes on the total gross assets in Texas of corporations doing business in the State. The Investment Securities company contended that franchise taxes should be collected only on the authorized capital stock, surplus and undivided profits. This question has been one of contention by many refineries, pipe line and oil corporations operating in Texas.



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HUMBLE OIL & REFINING CO.'S big drilling block with well now drilling below 800 feet. My acreage is located in southern Reeves County, Texas, in the big San Martine structure, and adjoins the drilling block of the Humble Oil & Refining Co., who are now drilling below 800 feet. My acreage is as close as any one has been able to play to this well. In order to obtain new clients I am offering part of my holding in tracts of 10 acres and up at $4 an acre. Write for full information and my Free map drawn true to scale showing the exact location of the holdings of the major companies, and my acreage.

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Reference: Page Bank, St. Louis.

FOR SALE—2,000 acres leases in new fields, Clay County, Tennessee. Shallow drilling; high gravity oil. G. W. Barksdale. Celina, Tenn.

200 ACRES, Terrell County, Texas. Survey 25 and part Survey 26, Block 1, I. G. N. R. R. $20 per acre. John Haley, general delivery, Pittsburgh, Pa.

WOULD like to hear from parties wishing to invest in Oklahoma. Wildcat leases and royalties. W. H. Adams & Co., 203 Clinton Bldg., Tulsa, Okla.

I WILL SELL at a great bargin, complete string of cable drilling tools, that were used to drill but 1,240; also lot of casing and 6-inch ideal rig irons, 40-h.p. Acme boiler, 12x12 Acme engine, bits from 15½-inch down. Dan M. Brennan, Chapel Hill, Tex.

WILL LEASE three thousand acres in Angelina County, Texas. Five-year commercial lease with good geological report favorably located for shallow production. Other substantial concerns operating in this vicinity. One dollar per acre with 50 cents renewals, all or part. Address P. O. Box 265, Liberty, Texas.

SETTLED production and drilling propositions. R. E. Cope, Bowling Green, Ky.

FOR LEASE—Garfield County, S½ NW¼, 21-20-3w, 80 acres. R. E. Baker, Box 427, Drumright, Okla.

WRITE for my state of Texas oil map free. Oil leases exclusively. Reference Mercantile Agencies.
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WEST TEXAS — 47,000 acres, solid block, 35 cents, with annual rental of 25 cents per acre. Also other acreage located in Howard and Glasscock Counties. Six thousand acres solid block in Glasscock County for a well. R. L. Cook, Big Spring, Tex.

NEW OIL DEVELOPMENT in Texas County, Oklahoma. One gas well, and six wells now drilling new locations and blocks nearly every week. Said to be the biggest wildcat in the state. Almost a wompus cat. The eyes of the world are on the Panhandle of Oklahoma and Texas. Send 25 cents for oil map showing locations of blocks and wells, and price list. Shows names of parties drilling and checkerboarding. The Guymon Land & Loan Co., Guymon, Okla.

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Can furnish practically proven leases in Artesia Field, Eddy County. Also other tracts in Eddy, Chaves and Lea Counties. Particulars on request.
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OIL LEASES—In Dallam and Hartley Counties, where the "Big Play" is now on; 88 form, 10-year leases in tracts of 80 acres up. Prices from $1.25 per acre up. Write or wire W. H. Lathem, Dalhart, Tex.

LEASES—PRODUCTION

COLONEL HUMPHREYS SAVED THE LEASE

W. J. Keeling and others owned the Simmons lease at Wortham, Tex. The lease would expire in about 25 days—Keeling et al stood to loose out. The Colonel made a deal with the boys and agreed to save the lease if possible. Marland Oil Co. had topped the Simmons with a lease and large bonus to take effect when Keeling's lease expired — but the Colonel brought in a 10,000 barrel gusher on time, and the lease was saved. The Simmons was a 32-acre tract. I have a 100-acre fault line lease that I must commence drilling by the 26th of this May or I lose the lease. If I commence on time the lease runs for four years longer. This lease is on approved geology, the Sun Oil Co. owning the greater part of the surrounding acreage. This well has four chances for production, but the greatest chance is the Woodbine sand. This lease is in the Mexia area in East Central Texas, the Woodbine sand being the big gusher producer at Mexia, Powell and Wortham, millions having been produced from this sand. I have geological report covering the area and geological map of the fault. Lease is within two miles of two major pipe lines.

I will sell one-half interest in the well and 100-acre lease, well to be drilled to the Woodbine sand unless commercial production is had at a lesser depth.

I refer you to Commercial National Bank, Brady, Tex.; Transcontinental Oil Co., Fort Worth, Tex.; Sun Oil Co., Dallas, Tex. Wire some of my references and get a line on me, then wire your remittance to Commercial National Bank, Brady, Tex., advising them that the remittance is for me and stating the amount of your purchase. I will make you a legal assignment for the amount of your purchase and the bank will send it to you.

One-half interest is worth $8,000. You can buy 1/256 interest for $62.50, 1/128 for $125, 1/64 for $250, 1/32 for $500 and so on up to one-half. Will not sell more than one-half interest. My titles are good. I own full seven-eighths of the mineral rights.

It will take about 30 days to complete a well the full depth. I believe it is the best fault line bet in the country. Remember, I must commence drilling by the 26th of this month and I am going to do it. I am asking you boys that want a good, clean, quick bet to get in now as you see there is not a minute's time to lose.

My lease has the same position in reference to the fault line as the Simmons had at Wortham. Get busy and buy your interest now and if for any reason whatsoever we fail to get it over, your money will be funded—dollar for dollar.

Address J. Meers, Brady, Tex.

HAVE SEVERAL pieces of flush and settled production for sale in Oklahoma and Wichita Falls districts. Prices reasonable and terms can be arranged if necessary. P. O. Box 1144, Dallas, Tex.

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FOR SALE — Leases, production and partly developed leases. On account of shallow drilling, low cost of equipping, small operating cost, high gravity oil and long life production, Kentucky offers the best opportunity for the small investor. We have for sale producing properties with 2 to 100 bbls. daily production and large undeveloped acreage with proven locations to drill. Address W. P. Harley, Bowling Green, Ky.

HAVE BUYERS for flush or settled production in Oklahoma and North Texas. Vern R. Hartman, P. O. Box 442, Dallas, Tex.

WATCH
CALHOUN COUNTY, MISSISSIPPI
Three counties, Calhoun, Webster and Lee, in line for a big play; several wells to be drilled; now is the time to get in. New 5-year leases; two years without rental, $1.25 per acre. Attractive block for test well to reliable parties. L. B. Mawk, Calhoun City, Miss.

LEASES—PRODUCTION

WILL SELL my 5 acres, located southwest of Guadalupe County. Only reasonable price will be considered. Box B-294, The Oil and Gas Journal, Tulsa, Okla.

5,260 ACRES, alternate sections, 4-year 25 cents semi-annual rental, adjoining 10,000 acres solidly blocked, 4-year 25 cents annual rental, excellent geological report and contour map, Loving County, the oil county of West Texas. Either or both royal snaps at $1.25. One-quarter royalty 1,920 acres, one mile from big Humble operation in Reeves County, now 2,500 feet deep; wonderful buy $1.25 per acre. E. L. Stratton, 1604 F. & M. Building, Fort Worth, Tex.

FOR SALE—Kiowa County, Kansas, leases. 8,720 acres, Township 30, Range 17w; 1,960 acres, Township 29 and 30, Range 16w. August H. Hoyer, R. R. 2, Canton, Kans.

TEN-YEAR oil leases. No rentals. Crockett County, Texas. Send for true map. Paul Konz, Box 291, Fort Worth, Tex.

HAVE 2,000-ACRE lease in west Navaro County, on fault line; will give part to have well drilled. G. E. Morgan, Cross Plains, Texas.

FORT SMITH THROUGH
10,000 acres, good structure and geology. Will sell or consider drilling contract. J. F. Dreisbach, 512 Central Ave., Hot Springs, Ark.

FOR SALE—Small production, good equipment. Opportunity knocks. Write P. O. Box 185, Springfield, Tenn.

McCULLOCH COUNTY, Texas, just ahead of the play. Some attractive shallow acreage for sale. J. Meers, Brady, Tex.

170,000-ACRE ranch, Culberson County, Texas, $4 per acre; fee simple. Title Oil & Mineral rights. John Haley, General Delivery, Pittsburgh, Pa.

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FOR SALE — One complete 28 Star drilling machine. For complete information address Box 31, Tulsa, Okla.

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The OIL and GAS JOURNAL
TULSA, OKLA.

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FOR SALE—9,000 acres of land located in the wheat belt of eastern New Mexico. Wheat in the locality where this land is located will make from 25 to 30 bushels per acre this year. This land is improved as a ranch and is about 75 per cent tillable. Price $6.50 per acre, one-half cash, balance good terms at 6 per cent. M. A. Crum, Friona, Tex.

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CHICAGO DEMAND VERY ACTIVE WITH PRICES STRONGLY MAINTAINED

By J. B. Waldo

CHICAGO, May 8.—The demand for gasoline has been active and sales have been large during the week. The past two days were less active, but Friday morning. there was what is believed a record business for the season. Many feel such a record cannot be maintained through the month but even the least optimistic expect good sales of gasoline and motor oils.

Prices have been strongly maintained and refiners have been asking 11¼ to 11½ cents for Navy grade with the latter price ruling at the close of the week and promise that next week might see higher prices asked. One or two have advanced to 11¾ cents, or say they will do so before Monday morning. What lower prices have been named have been by marketers who had stock purchased for delivery over the first part of May at somewhat lower prices than rule at present. Right now there is very little quoting in advance, as another tank wagon increase is expected very shortly and this will increase prices immediately at the refineries. Some larger distributers have considerable supplies but admit if their business continues at its present scale they will be in the market for more gasoline. One large northwestern jobber, in the market this week, stated that while he had considerable gasoline in storage he would buy on any breaks and was reported to have accepted an offer of 15 cars for early delivery at 11¼ cents.

Figuring on Season

There are some inclined to believe there will be such a material increase in the refinery runs that a surplus of gasoline may be refined but this is guesswork. Another matter that depends on the future entirely is the probable high point of the season. Many argue that 1 cent more will be all of the tank wagon advances in this territory. But this depends on demand and crude costs. The present conservative prediction is that present refinery prices may advance slightly but if conditions are right there may be very substantial increases in costs to the jobber and the general public.

The demand continues to be very largely for the 58-60 437 gravity, the U. S. Motors grade. There is some larger business done in the 56-58 grade and the higher tests are selling slowly except in the extreme Northwest where the cold weather still makes some jobbers order the 64-66 375 grade. The announcement by The Texas Company, of its new gasoline has caused a good deal of discussion regarding the best motor gasoline. There are several large distributors, one particularly might be mentioned in Detroit, who sells the 56-58 450 gasoline the year through. The Detroit concern is stated by its management to have never sold a drop of any other grade and its increasing business year after year is evidence, its president claims, that the gasoline sold at this company's stations gives satisfaction. He stated their customers made very little complaint even in cold weather. Once in a while some one may say they had a little trouble but his reply was that his own trucks and autos used the grade regularly sold and experienced no difficulty so that the trouble should be in the truck not in the oil.

There has been very little purchasing for export so far as this market is concerned. Casinghead gasoline has been much stronger and prices have sustained a considerable advance due to the expected increase in the demand for the product as a result of larger sales of gasoline by refiners.

Kerosene Advanced

Kerosene has been farther advanced in price by the Standard Oil Co., and the increase in the tank wagon selling prices was promptly followed by increases in refinery quotations. At this time 10 cents is a low price here for the 41-43 gravity and even at that price no promise of delivery is made beyond shipping as soon as possible. Some buyers have stated they must have definite delivery dates as they claimed the consumption of kerosene for tractor fuel would not last much longer. This year the weather prevented early plowing and when the ground was in condition to plow it was so late that the tractor became necessary to make up for lost time. Fields have been plowed by use of headlights. The country jobber and the refiner alike were not prepared for this rush of business. In previous years the rush of kerosene business is over before this time and the trade figures it will not last much longer. There is a great deal of complaint of slow deliveries and some local orders placed more than two weeks ago have not left the refinery. In the meantime, tractors are being operated on gasoline and in many places on straw distillate possibly with a little gasoline mixed in the tank. Many station managers report this makes a good tractor fuel and the agitation of the blend caused by the movement of the tractor makes the mixture permanent so long as the tractor is at work.

Naphthas Scarce

Naphthas are scarce and in demand, this applies to both blending and those naphthas used by the paint and varnish maker and the cleaners. The demand for V. & M. P. naphtha is large but so far no changes in the prices have been made, although both kerosene and gasoline tank wagon prices have been advanced.

No Distillate Contracts

Distillates are still selling, although the sellers seem to have no knowledge for what purpose unless for blending or in some cases as mentioned for tractor fuel. Local distributors have been closing out their stocks, although this applies more to the gas oils than to distillate. The inquiry for contracts for the coming season still continues, although many jobbers realize now they cannot at this time secure any contracts at any price. The continued changes going on in the industry, especially those which result from the general introduction of the cracking stills, have made the refiner very slow to look so far ahead as next August and September. The average refiner here at least says they suppose they will have some distillate for next season but how much or at what price they have at present not the least idea. They will wait for the market to develop and sell at the best price they can get. Several refiners made low priced contracts this season and in some cases had to buy from other refiners and pay more than the selling price to make deliveries. Some distillate has been sold at less than the recent market and 38-40 straw distillate is being offered at 4½ to 5 cents, a wide range, but the latter price is held by several refiners as their only price.

Gas Oil Softer

Gas oil has softened a little this week, largely as the result of a sort of house cleaning by some of the tank truck distributors and a few marketers and refiners who have been disposing of their surplus stocks of cracked gas oil. Quite a number of cars were bought at 3⅞ cents and one purchase was made for shipment out of Shreveport, La., at 3¾ cents. There has been no real change in the situation except what has come from this offering of excess supplies. The market is still quoted at 4⅛ to 4⅜ cents, the latter being the price for a straight run gas oil of which the supply is limited, being absorbed by refiners for stock for their cracking stills. Consumers naturally object to these prices but the increased demand and the reduced offerings leave them to take it or leave it. Some increases in stocks are reported from the field, but the offerings continue light and the demand equal to the offerings, although the use of gas oil for heating alone is over for several months. Refin-

(Continued on Page 145)

TIGHTENING OF GASOLINE IN EAST, BUT UNDERSELLING AT STATIONS

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, 30 Church St., New York

NEW YORK, May 8.—The refined oil markets on the Atlantic Seaboard turned quiet following the advances in prices of the preceding week. Consumption of gasoline held up fairly well, but did not rise to new records, as a result of continued cold weather, which is still in force.

Evidence of a tightening in the gasoline situation was shown, however, by an advance in refinery prices, it being impossible to get New Navy gasoline in tank car lots at Bayonne for less than 14 cents a gallon, which is considered practically a prohibitive price.

A canvass of gasoline service stations in and around New York showed the usual variations in prices, surely as numerous as a year ago. This is believed to be due in part to the large spread existing between wholesale and retail prices. The tank wagon price in New York City is now 20 cents a gallon, but retail prices range from 20 to 24 cents, and there are an especially large number of stations selling at 21 cents. This is taken as an indication of concessions being made to service station dealers. Otherwise they could not consistently sell at such low prices and stay in business.

Taking into account various concessions reported as given directly or indirectly to service station dealers, the margin between the actual cost to service stations and the price of 23 cents reprseenting the average retail price in New York City and environs ranges from 3 to 6 cents a gallon.

In addition there are some chains of service station having a large gallonage selling below 20 cents, and having consistently undersold the big companies by about 3 cents (retail) for a year or more. These stations have their clientele, who are not apparently particular as to quality.

With these price factors taken into consideration, it can be seen that the price situation as related to gasoline on the Atlantic Coast is not entirely free from depressing influences. These influences are only modified by the habit of motorists in consistently buying a favorite brand of gasoline irrespective of the price as related to competitive brands.

Kerosene Strong

The bulk kerosene market is strong as a result of the withdrawal of some refiners from quoting it. Prime white is not obtainable below 9 cents a gallon at Bayonne. This is due to the heavy export demand to be met by coastal refiners and the heavy domestic consumption, both in oil burners and tractors. In addition there is the factor of the use of kerosene for cracking purposes.

Gas and Fuel Oil

Gas oil continues firm at 6½ cents a gallon, with indications pointing to higher prices in the near future.

Diesel oil is also firm, with a steady gain in demand.

Bunker fuel oil is firm at $1.75 a barrel at New York, but it is expected an advance may come in the near future if present marketing conditions continue. Bunker coal has been moving upward as a result of the British strike, and both factors have turned shipowners again toward the possibilities of fuel oil burning. Bunker oil may advance 5 to 10 cents a barrel in sympathy with coal.

Lubricating Oil

The lubricating oil market is unchanged with business moving at only a fair rate. Prices are substantially the same as they have been for a number of weeks.

Paraffin Wax

Paraffin wax is also unchanged. Some refiners are quoting prices ⅛ to ¼-cent above the recent market on 130 a.m.p. and higher, but as business is not coming in very heavily, the same prices that have been quoted, namely 6¼ cents for 130-132 and 6⅞ for 135-137, are believed to be most representative.

Petrolatum Weak

The petroleum market continues to sag. Amber dropped ⅛-cent during the week to 3¼, the lowest price in many months. Light amber is 3½, down ⅛. Cream remains at 5¾ cents and lily white at 8, but snow white is available at 9¼ cents a pound, a decline of ¼ cent.

Weakness in this product is due largely to an absence of demand for export, and factors expect this condition to continue for the time being, based on the present outlook.

The Export Market

The petroleum export market is dominated by the British strike. This has had the effect of restricting future orders, although movement is continuing on business already contracted for. This is especially true of barrel products, usually shipped on cargo vessels.

It is yet too early, of course, to estimate the real effect of the strike on the oil export market here, especially since the duration of the strike is a factor about which no one seems willing to make predictions.

Bulk shipments from New York have continued normally up to the first of May, but no tankers have cleared since. This cannot be taken as having any significance, as most of the bulk business is handled from the Gulf or Pacific Coasts.

The bulk movement of gasoline was fairly heavy during the week ended May 5, amounting to 5,468,318 gallons, consigned entirely to Scandinavian ports.

There were two bulk shipments of lubricating oil to England aggregating approximately 1,448,000 gallons.

Other shipments to England included 500 tons of petroleum coke, consigned to Glasgow, Scotland.

Exports of asphalts continued heavy, amounting in all to 2,291,400 pounds, compared with 1,992,150 pounds the preceding week.

The following table shows principal exports of petroleum and petroleum products from New York during the last three weeks, (figures in gallons unless otherwise noted in parenthesis):

	Week Ended		
	May 5	Apr. 28	Apr. 21
Gasoline:			
Bulk	5,468,318	.....	.....
Cases	1,433,730	1,602,740	1,021,790
Kerosene:			
Bulk	1,858,337	1,405,017	.....
Cases	919,180	800,660	2,471,760
Turpentine substitute:			
Bulk	174,373	.....	.....
Gas oil:			
Bulk	344,262	195,659	.....
Fuel oil:			
Bulk	.....	225,304	.....
Lubricating oil:			
Bulk	1,488,121	1,343,403	1,483,636
Barrels	1,263,350	2,534,150	1,765,500
Cases	168,240	378,820	258,120
Lubricating grease:			
Barrels (lbs.)	.....	985,050	475,650
Paraffin wax:			
Bags (lbs.)	772,640	3,633,080	895,400
Barrels (lbs.)	.....	195,700	.....
Petroleum asphalt:			
Barrels (lbs.)	2,291,400	1,992,150	288,000
Petroleum coke:			
Bags (lbs.)	1,100,000	.....	.....
Crude oil:			
Bulk	.....	1,740,067	.....
Barrels	.....	171,150	.....

Tanker Charter Market

The oil tanker charter market seems to have turned dull since the start of the British general strike. If anything tanker owners are holding out for higher rates on new fixtures. The only fixture made public since the strike was that of the British ship Rio Dorado, 2,766 tons net, Gulf Coast to six ports of Australia and New Zealand, with case oil, at 40 cents a case.

Previous fixtures reported were as follows:

Tanker Silverfield (Br.), 50,000 bbls. of gasoline, United Kingdom-Continent, 27s 6d., June loading.

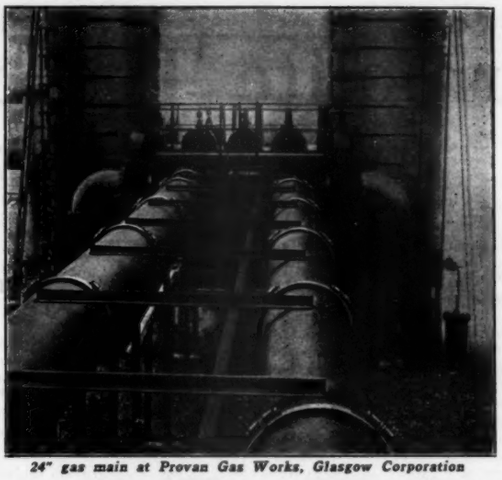
Tanker Tynefield (Br.), 3,475 tons net, Gulf to United Kingdom-Continent, 28s, June loading.

Tanker Richmond (Am.) approximately 2,700,000 gallons gas oil, Gulf to Scandinavia, 29s., May loading.

Tanker Atheltarn (Br.), 4,407 tons net, Gulf to United Kingdom-Continent, gas oil, early May loading.

Estimated receipts of crude and re-

(Continued on Page 145)



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Anglo-Chilean Nitrate Corp.
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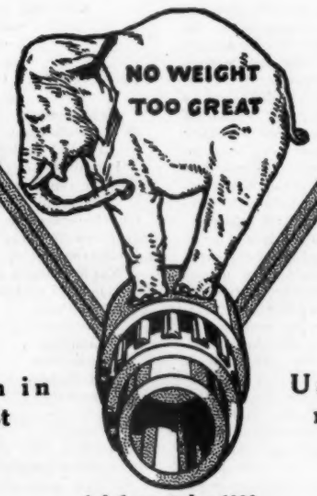

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Method Has Limitation in Separating Unsaturated From Saturated Cyclic Hydrocarbons. Experiments Are Given

By Donald R. Stevens*

Interest in the unsaturated content of petroleum naphthas has been very pronounced since the value of cracked gasolines as motor fuels has recently been emphasized. The exact nature of these compounds is not definitely known, but it is fairly certain that they are composed largely of straight-chain olefines, and contain relatively small amounts of diolefines and cyclic olefines. The two latter types of compounds are recognized as being undesirable because of their tendency to become discolored with age and to favor the deposition of "gums" on the valve parts of the motor and in carburetors. It was not so long ago that both the refiner and the consumer looked upon the total unsaturated content of cracked gasoline as undesirable. The olefines, however, are now recognized as ranking well with the naphthenes and the aromatics in their value as motor fuel components.

It has been indicated by Ricardo, in fact, that in antiknock fuels containing toluene, one can substitute 4 per cent of naphthenes or 5 per cent of olefines for each 1 per cent of toluene present, without impairing the quality of the fuel. For a suitable motor fuel, the diolefines must be removed, a method for which, based on our present knowledge, is not easily prescribed. For this, among other reasons, a more complete knowledge of the chemical behavior of unsaturated hydrocarbons would be very welcome to the refiner, to guide him along the path of obtaining the maximum yield of optimum quality product.

The need of a good analytical test for unsaturated hydrocarbons, both for total content and for individual characteristics, is very evident. It would help a great deal in clearing up the mystery of just what is in petroleum naphthas and this in turn would suggest new uses for the various constituents. A number of methods have been offered as a means of studying the olefinic content of oils, each, however, having its limitations. The one that has probably received the most attention was originated by the Russian chemist, Nastjukow,[10] in 1906, which he called the "formolite" test. It is also known as the "formolite" test.

Formolite Test

The test has been used extensively in the study of the chemical nature of the viscosity-bearing constituents of lubricating oils, as well as the chemical nature of oils from various sources. [1 10 11 13 15] It has been used to determine the amounts of impurities in paraffin wax, found off color,[2] and is still used by some to follow the changes in transformer oils over an extended period of service[3]. The test has been recommended as of value in detecting the presence of unsaturated cyclic hydrocarbons in admixture with other hydrocarbons, supposedly offers a means of separating the unsaturated from the saturated cyclic hydrocarbons, and a means for determining the characteristics of crude petroleums and their distillates[4].

The method of procedure consists of adding one volume of concentrated sulfuric acid and one and one-half volumes of 40 per cent formaldehyde to one volume of the refined petroleum product. A vigorous reaction ensues and under favorable conditions a yellow-brown amorphous substance, resembling bran or sawdust, separates out. The solid material is washed free from other reagents and from the oil not acted upon, then dried and weighed. This solid is called formolite. It is infusible, and insoluble in ordinary solvents. The weight of the solid obtained from 100 c.c. of oil is called the formolite number of the oil and is supposed to represent the amount of unsaturated cyclic hydrocarbons present.

Unsaturated Hydrocarbons

Very little is known about the chemistry of mechanism of the reaction. The experimental data on hand indicate that unsaturated cyclic hydrocarbons are the most susceptible to the formation of the formolite precipitate. Tausz[4] found that formaldehyde-sulfuric acid mixtures acted upon diolefines containing conjugated double bonds. The sulfuric acid more than likely first acts upon the conjugated diolefines to form ring structures. $C_6(C_2H_5)_6$ and $C_6(CH_3)_6$ do not react, showing that only hydrogen atoms attached to the nucleus of the unsaturated ring are able to take part in the reaction. Nastjukow[1], on treating various hydrocarbons with sulfuric acid and formaldehyde, observed no formolite formation, with the following hydrocarbons:

Saturated Hydrocarbons:
- hexane

Ethylene Hydrocarbons:
- amylene
- hexylene
- caprylene

Acetylene Hydrocarbons:
- diallyl

Naphthenes:
- cyclohexane
- methyl cyclohexane

Dinaphthenes:
- dicyclohexane
- dimetyhl dicyclohexane

On the other hand, he obtained a positive formolite reaction from the following unsaturated cyclic compounds:

Naphthenenes and terpenes:
- methyl cyclohexane
- menthene 3
- menthene 4
- limonene
- camphene
- phellandrene

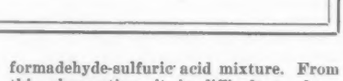
Aromatics:
- benzine
- toluene.

Radcliffe[5] was unable to obtain any condensation products with fully reduced carbocyclic compounds. Many unsaturated cyclic compounds are polymerized by sulfuric acid alone, and the purpose of the formaldehyde is quite obscure.

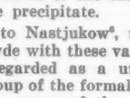
Effect of Distillation

When the formolite precipitate is subjected to fractional distillation, saturated hydrocarbons are mainly obtained. However, about 6 per cent of the distillate is again capable of reacting with the formadehyde-sulfuric acid mixture. From this observation, it is difficult to draw any conclusions as to the exact chemical nature of the precipitate.

According to Nastjukow[6], the reaction of formaldehyde with these various hydrocarbons is regarded as a union of the methylene group of the formaldehyde with the —C=C— group of the original unsaturated cyclic hydrocarbon or olefinic hydrocarbon molecule. The instability of the trimethylene ring thus formed leads to the reformation of a double linkage, thus



The product is the formolite compound formed. This can be further acted upon in a similar manner as above, to give



Condensation can now go no further. No experimental proof has been offered to substantiate this hypothesis.

Marcusson[7] suggested that the formolite precipitate was a sulfur and oxygen condensation product of unknown constitution. Dilute sulfuric acid, however, is commonly known to condense diolefines, and these condensation products may have some relationship to the liquid formolites formed by certain variations in the method of procedure.

To obtain comparable results with the formolite reagent, the method of procedure must be very well standardized. By altering the conditions of the reaction, such as varying the time, temperature or concentration of the sulfuric acid, it is impossible to isolate a series of "formolites," some of which are liquid. With naphtha distillates, Nastjukow[6] prepared a whole series, varying from solid and insoluble to solid and soluble to liquid and soluble in the same organic solvent. These liquid formolites themselves have high formolite numbers.

Become Resinous

The reaction is further complicated by the fact that some unsaturated cyclic hydrocarbons become resinous when treated with formaldehyde instead of causing a precipitate. Oxygen derivatives of the hydrocarbons are also thought to be acted upon by the formaldehyde, as shown by the fact that phenol will give a solid product when treated with formaldehyde. In the refining process these oxygen derivatives of crude naphtha may break up on distillation to form saturated compounds, or they may be absorbed by fullers earth. The formolite test has been shown by Herr[8] not to give concordant results, due to the fact that the formaldehyde is not entirely soluble in the oil it is to act upon. In line with this result it is found that better yields of the formolite precipitate are obtained when the reaction mixture is rapidly stirred. Asphaltenes and petroleum resins are precipitated as well as the unsaturated cyclic hydrocarbons, which makes the formolite numbers higher than they should be. Filtering the oil through fullers earth will lower its formolite number. The previous history of the oil is therefore an important factor, and must be taken into consideration when interpreting the analytical results. Radcliffe[5] reported that only a very rough approximation could be obtained, using Herr's modification, in comparing the iodine numbers with the formolite numbers of various hydrocarbons. It was not found possible to make the reaction quantitative, which is very essential if the test is to be of any value.

Herr Method

The inaccuracy of the test as such has called for modification. Herr[8] developed a method in which he used methylal instead of formaldehyde. This change resulted in quite an improvement, due to the fact that the solubility in the oil is much greater. The use of methylal made the test sensitive to 0.05 per cent benzene, while the original test using formaldehyde was sensitive only to 0.5 per cent. Further experiments showed that only aldehydes of the fatty series caused condensation with unsaturated cyclic compounds. Benzaldehyde, for instance, had no effect. Richardson[9] in studying the nature of asphaltic materials, was able to get reliable data by weighing the residual oil not acted upon by the aldehyde-acid treatment. Other refinements have been introduced, such as the use of powdered para-formaldehyde by Marcusson[7], and trioxymethylene by Tausz[4]. The use of these substances reduces the tendency of the sulphuric acid to become too greatly diluted by the water formed during the reaction.

VALUE OF FORMOLITE TEST

The formolite test, as such, gives very little definite information. This fact follows from the uncertainty of the true chemical nature of the precipitate obtained. Its composition may vary from oil to oil, and even the same oil may give a different formolite precipitate when the manner of treatment is altered. It is obvious from the many suggested changes that have been offered, that no definite conclusion has been reached as to the best method of carrying out the test.

A modification suitable for the investigation of the properties of one oil may not be the best one to use for another. The difficulties encountered can easily be appreciated when one considers the complexity of the various petroleum naphthas. Their chemical constitution and physical properties vary from source to source, and from treatment to treatment. Taking this fact into consideration, one cannot expect too much information from a test as simple as the formolite test.

The indefiniteness of this widely advocated test may be taken as a good example of where the information derived from pure scientific investigation would be found useful to the practical world. It is to be hoped that this field for investigation will receive the attention it deserves from research chemists.

*Multiple Industrial Fellowship on Petroleum, Mellon Institute of Industrial Research, University of Pittsburgh, Pittsburgh, Pa.

*See references at end of article.

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ROCKY MOUNTAIN FIELDS

(Continued from Page 54)

of rock salt have been drilled through in many places in Utah.

Big Sunburst Wells

Section 4-34-2, in the Sunburst Field of Montana, that brought in the big wells last year, started this season's campaign with another big well estimated at 2,000 bb.s. This is the Queen City Oil Co.'s new producer and the flowing well caught fire and destroyed the derrick and equipment.

The force of the flows drilled the well in itself and the hole deepened to the water, but this is not considered enough to do any damage, although the well is making some water with the oil. After burning for two days the well was brought under control and is now shut in

waiting on new rig and material to be placed on production.

Another big well was completed on Section 31-35-1, on the east side of the field by the Fulton Oil Co. This well found the oil in the Ellis sand at 1,410 feet and is estimated at 3,000 bbls. This well also is producing about 5,000,000 feet of gas along with the oil.

The Great Northern Railroad is changing over all its engines on the Butte division, in Montana, to oil burners. This is expected to help considerably in the taking of the Sunburst Field crude for the field is now producing upwards of 24,000 bbls. daily and if this mark is kept up, the producers are questioning where a market can be found for the oil.

The Great Northern Railroad will place three fuel oil stations at Great Fal's, Cushman and Helena. These stations will have a capacity of 65,000 gallons each. The making over of the coal burners on the Butte Division makes the whole line of the Great Northern from Williston, N. Dak., to the Pacific Coast an oil burning road. Practically all of this fuel oil is now coming from the Sunburst Field after the refineries and skimming plants have taken off the naphthas.

A new natural gas schedule went into effect May 1, at Kevin, on the west side of the Sunburst Field. The rates are 50 cents for the first 1,000 feet and up to 10,000 feet used monthly. Then 47½ cents for 90,000 feet, 100,000 feet at 45 cents, over 100,000 and up to 200,000 feet at 40 cents, over 200,000 and under 300,000 feet is at the rate of 35 cents, over 300,000 and under 400,000 feet at 30 cents, 400,000 and up to 500,000, at 25 cents and over that amount at 20 cents.

Salt Creek Completions

The Midwest Refining Co. completed eight new producers in the Salt Creek Field the past week, through its subsidiary companies. The Wyoming Associated Oil Co. and the Midwest Oil Co. drilling jointly on Section 12-40-79, found a producer of average size in the second Wall Creek sand at 2,198 feet. The same two companies completed a new well on Section 25-40-79 that is making 20 bbls. from a depth of 1,850 feet.

The Wyoming Associated Oil Co. completed three new producers on Section 14-40-79, one at 1,390 feet that will make 15 bbls., one at 1,455 feet that is good for 10 bbls. and a third at 1,845 feet that is estimated at 20 bbls.

The Mountain & Gulf Oil Co. drilled in a new producer on Section 13-40-79 in the second Wall Creek sand at 2,155 feet and it will make a nominal producer estimated at 20 bbls.

Colorado Operations

The Fort Collins to Cheyenne gas line has about 10 miles of trenching completed and about 4 miles of pipe laid, the work is proceeding at the rate of a mile per day. This line will carry gas from the Fort Collins Field to Cheyenne and will be about 27 miles long.

The Messerschmidt well of the Union Oil Co. of California has been placed on the pump and is good for 300 bbls. daily. The Buckeye well of the same company is preparing to pump and test and No. 4 Buckeye, had the rig burn and will be held up for several days until a new rig is built. The production of the Fort Collins Field averages around 2,800 bbls. daily at present.

Unusual Water Shutoff

The Wallace Creek wildcat that proved dry, drilled by the Continental Oil Co. in Natrona County, Wyoming, about 15 miles south of Waltman, has effected a water shutoff that is out of the ordinary. Some times in deep holes like this the problem of shutting off water proves greater than the cost of the drilling of the well.

The Wallace Creek well accomplished this by placing a string of tubing in the well to bottom, about 4,000 feet. Then a pump sent ten tons of cement into the hole through this tubing. The cement was followed by a small wooden plug that was so fixed that it lodged in the tubing at a left-hand nipple up in the hole about 600 feet. When the wood plug was found to have lodged solid at the left-hand nipple, the upper part of the string of tubing was backed off by unscrewing the left hand thread and pulled out. Although this well had a column of water that flowed as high as the beam from a depth of 4,000 feet, the shutoff was complete and the hole perfectly dry when the string of tubing was pulled. Practically all of the casing was salvaged also.

Sundance Producer

The Hughes Royalty Oil Co., operating off the Mahoney Dome in the Lost Soldier Field, Carson County, Wyoming, has a good producer in the Sundance sand on Section 25-26-88. For many years the Mahoney Dome has produced gas from the upper sands, but recent developments have shown the Sundance sand to be oil bearing and the operators there are now anxious to see how great an area the pool covers.

Daniel J. Danker has purchased the interests of the McMahon Oil Co. in the Polecat Field in the Big Horn Basin. Mr. Danker and associates have long held some interests in this field where two large gas wells have been drilled and through this purchase the Danker interests have obtained control of the whole structure.

Montana Production

Montana's oil production for the month of March, as gauged by the deliveries for transportation from the field to railroad by the Illinois Pipe Line Co. in the Kevin-Sunburst Field, and by the Continental Oil Co. in the Cat Creek Field, aggregated 646,848.29 bbls. This does not include oil which may have been marketed for fuel in the field or which may have been transported by independent concerns not acting as common carriers.

The report of the Illinois Pipe Line Co., filed with the State Railroad Commission for March, shows receipts for transportation of 558,987.35 bbls. and deliveries of 441,747 bbls. as follows:

B. A. S. Arranow, 726 bbls.; Sunburst Oil & Refining Co., 69,756 bbls.; Bluebird Oil & Refining Co., 578 bbls.; International Refining Co., 168,249 bbls.; Alberta Refining Co., 3,731 bbls.; Maple Leaf Oil & Refining Co., 50,985 bbls.; Imperial Oil Co., 147,720 bbls.

At the close of March the pipe line company held in storage for others 410,374 bbls. and had unfilled storage for 123,666 bbls. The field price during the entire month was $1.15 per barrel.

In the Cat Creek Field the Continental Oil Co. received for transportation 87,861 bbls., and made deliveries as follows:

Purchase account—Standard Oil Co. of Indiana, 12,572; Utah Oil & Refining Co., 8,462.

Common carrier account—Yale Oil corporation, 7,078 bbls.; Lewistown Oil & Refining Co., 33,724; Arro Oil & Refining Co., 16,667; North Star Oil & Refining Co., 3,597; Utah Oil & Refining Co., 7,023; Hart Refineries, 2,634; Silver Bow Refining Co., 2,638; Weowna Refining Co., 9; Bluebird Oil & Refining Co., 4,392. Total of both accounts, 98,497.

There was in storage at the close of the month 108,434 bbls. for the pipe line company and 4,179 for others, with an unfilled storage for 200,632 bbls. The field price during the month was $2.15 a barrel.

Runs from the Fields

Salt Creek	55,590
Teapot	1,420
Big Muddy	3,490
Grass Creek	3,020
Elk Basin	570
Greybull	55
Rock River	3,200
Lance Creek	1,820
LaBarge	150
Poison Spider	590
Osage	350
Hamilton Dome	1,160
Lander	250
Byron	30
Lost Soldier	4,360
Ferris	50
Simpson Ridge	200
Sunburst	21,500
Cat Creek	2,930
Lake Basin	170
Florence	360
Moffat	3,260
Tow Creek	105
Fort Collins	2,735
Iles Dome	65
Boulder	25
Rangeley	100
Hogback	450
Rattlesnake	475
Artesia	3,000
Total	111,480

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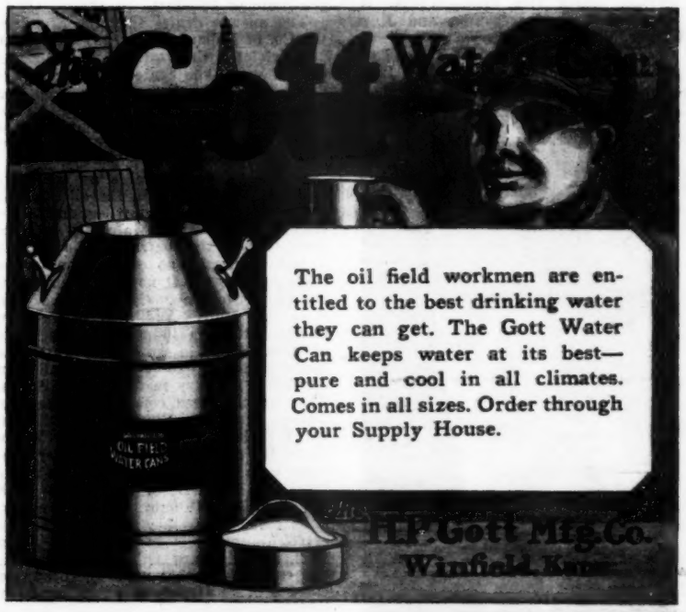

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REFINING AND MARKETING

Kansas Oil Jobbers Oppose Any Increase In Gasoline Taxes

WICHITA, Kans., May 7.—Kansas jobbers at the twelfth annual meeting of the Kansas Oil Men's Association here today announced their opposition to any increases in the present gasoline tax of 2 cents. The matter of taxation was the principal subject discussed at the one-day meeting which was attended by approximately 200 delegates.

A. C. Carpenter, president of the Lesh Oil Co., Ottawa, was elected president of the association for the coming year. Mr. Carpenter is a veteran Kansas jobber and has been active in association work for several years. He is a director of the National Petroleum Marketers Association. Other officers elected were as follows: J. S. Longshore, Topeka, first vice president; Rex L. Kent, Norton, second vice president; Harry Hart, Dodge City, third vice president; Harley Burger, Coffeyville, fourth vice president; A. W. Long, Manhattan, treasurer, and J. A. Motter, Wichita, secretary.

In condemning the trend toward higher gasoline taxes, national legislation which would give a uniform tax throughout the country was suggested as a remedy. Sev-

A. C. Carpenter, Leah Oil Co., Ottawa, Kans., elected president of the Kansas Oil Men's Association.

eral speakers condemned the attitude of politicians who are constantly seeking new ways to tax the oil industry. Charles M. Sutherland, secretary of the Nebraska Independent Oil Men's Association, told of the demoralization of the industry in Nebraska while Charles Bryan was Governor. Mr. Bryan is again a candidate for Governor and is making the oil business the main issue of his campaign, Mr. Sutherland said. Mr. Sutherland said there were too many small jobbers in Nebraska buying at the tank car price. He also said the cooperative oil companies were injuring the business of the regular dealers.

L. V. Nicholas, president of the National Petroleum Marketers Association, in the principal address of the convention, made a plea for national unity among the jobbers. He said most of their problems were national in scope and should be solved on that basis.

The coloring of gasoline for retail sales was also discussed at the meeting. The sale of colored gasoline has recently been authorized by the state. A representative of the State Department was present, however, and explained that before the gasoline was colored it must first pass the water white test.

This has been taken to mean that jobbers can color their gasoline but they must first satisfy the inspection department that the gasoline at the refinery or bulk station met the usual requirements as to color. This regulation, it is expected, will prevent any wide distribution of colored gasolines in Kansas.

STANDARD OF INDIANA ANSWERS OUSTER SUIT

JEFFERSON CITY, Mo., May 10.—The Standard Oil Co. of Indiana today filed in the Supreme Court of Missouri its answer to information in the nature of quo warranto filed by Attorney General North T. Gentry on December 12, 1925, which information seeks to have the Standard Oil Co. of Indiana, The Texas Company, the White Eagle Oil & Refining Co., and the Standard Oil Co. of Kentucky either ousted from the State of Missouri or fined upon the charge that they have violated the antitrust laws of the State of Missouri.

The answer denies that the Standard Oil Co. of Indiana has at any time since 1913 violated the antitrust laws or any other laws of the State of Missouri. It denies that the company has ever entered into any agreements with the other companies, named or any companies, that have restrained trade, established or attempted to establish a monopoly.

It asserts that there is no monopoly or restraint of trade in the oil business in the State of Missouri or any other states in the territory in which it operates; that on the contrary while in 1913 it had practically no competition in the State of Missouri it now has more than 900 competitors actually competing with it in that state. And, that competition in the petroleum industry in the State of Missouri and in the United States has increased to an extent never equalled in any other industry in the United States. That among these competitors are The Texas Company, Sinclair Consolidated Oil Co., National Refining Co., White Eagle Oil & Refining Co. and other concerns with large financial resources; that these 900 competitors have since 1913 established 2,169 bulk and service stations from which they are today selling petroleum products in open competition with the Standard Oil Co. of Indiana and each other; that while the Standard Oil Co. of Indiana is today selling more petroleum products in Missouri than it did in 1913, the percentage of its business has decreased, and the percentage of business done by its competitors has increased constantly during that period.

MECCA CO. PROPERTIES BOUGHT BY MORONEY

Properties of the Mecca Refining Co., at Allen Okla., have been acquired by W. J. Moroney of Dallas, Texas, who also will represent L. E. Francis, who has purchased the company's property at Augusta, Kans. Mr. Moroney is taking steps to liquidate the assets of the company.

The Mecca Refining Co. owned two refineries, one at Allen, Okla., and the latter at Augusta, Kans., both skimming plants. The former refinery is running an average of 100 bbls. of crude daily under the management of F. L. Martin. The Augusta plant is shut down.

PANHANDLE OIL RAILROAD

AMARILLO, Tex., May 8.—Permission granted the Santa Fe railroad the past week by the Interstate Commerce Commission for the construction of a 30-mile line into the Panhandle oil field is expected to be of great benefit not only to producers but also to refiners and natural gasoline manufacturers.

MAY ASK INJUNCTION ON LUB SPECIFICATIONS

AUSTIN, Tex., May 10.—Possibilities that Texas refining companies may ask an injunction against the State Board of Control awarding contracts for a year's supply of lubricating oil for the State Highway Commission if the commission recommends the purchase of only paraffin base oils were seen here the past week.

The Texas oil companies are fighting the contracts as specifications provide that only oils of paraffin base will be considered. Lubricating oils manufactured by Texas companies are asphaltic base oils and as a result it is charged that the specifications are discriminatory.

Bids for the contract were opened more that a week ago but so far the commission has delayed action on its recommendation to the board of control.

LAFE S. COLLINS DIES

Lafe S. Collins, one of the pioneer oil jobbers of the Middle West, died Fri-

Lafe S. Collins

day, May 7, at his home in Knoxville, Iowa. Mr. Colline was founder of the Collins Oil Co. of which he was president at the time of his death. The company was founded in 1884 and through gradual expansion became one of the largest independent jobbing concerns of that section of the country. Mr. Collins was also active in other line of business.

BUYS JOBBING INTEREST

A. F. Morrison, former sales manager of the Kanotex Refining Co. at Arkansas City, Kans., has purchased an interest in the Foster & Tyberendt Co., jobbing concern of that city. The company, which operates several stations in Arkansas City, expects to enlarge its marketing facilities. Mr. Morrison is well known in both refining and marketing circles. Previous to his connection with the Kanotex he was associated with the Lesh Refining Co. and the Milliken Refining Co.

DERBY OIL CO CHANGES

Following disposal of the retail marketing division to the Marland Refining Co., the Derby Oil Co. of Wichita, Kans., has appointed Robert Cunningham, formerly manager of the western division, as assistant wholesale sales manager, while N. L. LeBlond, formerly in charge of Kansas City stations, has been placed in charge of tank car sales at the Kansas City branch. C. A. Keller continues as sales manager with headquarters at Wichita.

FUEL OIL CONSUMED BY DOMESTIC USERS

California companies marketed 117,346,391 bbls. of fuel oil during 1925, a decrease of 3,801,345 bbls. from the total sold during 1924, according to the annual report of E. B. Swanson, associate economic analyst of the Bureau of Mines at San Francisco.

The decrease was due almost entirely to the lower consumption of fuel oil at electric power plants. Demand for oil as fuel at these plants depends greatly on the amount of water available. Water was relatively scarce in the five Pacific states during 1924, which accounted for the greater need of oil for fuel during that year than in 1925.

In 1925, the amount of fuel oil consumed by Pacific Coast power plants dropped to 2,689,861 bbls., according to the United States Geological Survey, although the electrical energy produced increased by approximately 800,000,000 kilowatt hours. Of the 1924 production of electrical energy, 65.3 per cent was by water power and 34.7 per cent from fuels, but in 1926, 84.6 per cent was by water power and only 15.4 per cent from fuels.

In Table No. 1 the consumption of fuel oil is shown for the past two years, segregated by the more important uses in the normal domestic territory, which includes California, Oregon, Washington, Nevada and Arizona, together with some shipments to Idaho, Utah, New Mexico and Texas.

Domestic Consumption of Fuel Oil by Major Users

	1924, Bbls.	1925, Bbls.
Railroads	29,369,775	28,838,456
Shipping (bunkers)	22,609,182	23,445,074
Gas and power plants	12,908,188	8,421,641
Smelters and mines	3,996,361	4,852,986
Steel mills	914,521	1,320,199
Sugar refineries	1,452,158	1,164,275
Logging, lumbering	2,456,408	2,859,938
Cement plants	3,935,406	3,662,963
Oil companies	5,592,523	5,690,383
Others	12,972,148	9,294,997
Domestic consump.	96,206,670	89,550,912
U. S. Navy	3,249,234	4,779,368
Exports, etc.	21,691,832	23,016,111
Total marketed	121,147,736	117,346,391

RIVERSIDE ORDER DENIED

OKLAHOMA CITY, Okla., May 8.—Judge John H. Cotteral of the United States District Court has denied an application for an order restraining officers of the Riverside Oil & Refining Co. from taking the company's property from possession of Vernon V. Harris, receiver; J. B. Dudley, John Halley, state court referee, and others. It was charged in the application for an injunction that Harris and the other men had conspired to gain control of the property and that at an August meeting of stockholders a majority voted against asking for a receivership. The Riverside properties are said to be value at $1,000,000.

WILL OPEN CHICAGO OFFICE

CHICAGO, May 8.—The Warson Petroleum Co., of St. Louis, has announced its intention to open an office in this city at an early date. It will also reopen its office in Tulsa. The company has within a short time sold an added issue of capital stock amounting to $150,000 and is preparing to materially increase its business.

CALIFORNIA GASOLINE SALES

SACRAMENTO, Calif., May 10.—Gasoline sales in California totaled 199,495,068 gallons during the first three months of this year, according to figures compiled by the State Board of Equalization based on gasoline taxes. During the corresponding period of the previous year only 174,232,507 gallons of gasoline were sold.

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Jenkins Cracking Process

Stacks-Breechings

General Steel Plate Construction

Water Softeners
Hot Process
Cold Process
Zeolite
Household

Filters—*Pressure*

Purifying Systems for Swimming Pools

GRAVER Corporation *Founded 1857*
EAST CHICAGO, INDIANA

NEW YORK Grand Cent. Term. | CHICAGO Steger Building | TULSA Atlas Life Bldg. | HOUSTON West Building

Brief Items for Plant Operators

GASOLINE PRODUCTS WINS SUIT AGAINST OMAHA CO.

The United States District Court for the District of Nebraska (Omaha Division), entered judgment on April 30, 1926, for $9,162.12 against Omaha Refining Co., in the suit commenced by Gasoline Products Co., Inc., for the collection of royalties owed by Omaha Refining Co., as licensee under its license contract dated May 4, 1923, licensing the operation of the Cross cracking process under patents owned by Gasoline Products Co., Inc.

The pleadings indicate that the royalties were paid under the contract until June, 1924, when Omaha Refining Co. declined to pay further royalties on the plea that such payment would subject it to liability in view of the suit commenced in June, 1924, by the United States Government against Gasoline Products, Co., Inc., The Texas Company, Standard Oil Co. of Indiana, Standard Oil Co. of New Jersey and their various licensees, charging alleged violations of the Sherman Antitrust Act. The pendency of this suit was set up as a special defense by Omaha Refining Co., in the suit by Gasoline Products Co., but the District Court held that the defense was not good and struck out the portion of the answer setting it up; and there being no other defense offered, entered in favor of Gasoline Products Co., Inc., for all royalties due and unpaid under the license contract up to December 24, 1924, on which date the contract was cancelled by Gasoline Products Co., Inc., for nonpayment of royalties.

DISTILLATION OF THE TEXAS CO. GASOLINE

The Texas Company during the past week started national distribution of what was termed in its advertising "A New and Better Gasoline." In its official announcement the company states that the gasoline is made available through the operation of the Holmes-Manley cracking process which the company owns.

The qualities claimed for the new motor fuel are a low end point of 400 degrees Fahrenheit, low initial, balanced distillation range with aromatic and naphthene hydrocarbons which give exceptional antiknock characteristics.

The following distillation test was made Monday by the Tulsa Laboratories, Inc., of Tulsa. The sample from which the test was made was obtained from one of The Texas Company filling stations located in Tulsa.

Distillation Test

Gravity A.P.I., 62.2 Baume, color, 22 Saybolt, Doctor Sweet, 10 per cent soluble in (sulphuric acid, specific gravity, 1.84, initial boiling point, 106 degrees Fahrenheit, end point, 400 degrees Fahrenheit.

Distillation

Per Cent Off	Temperature Degrees F.
10	152
20	182
30	208
40	228
50	248
60	266
70	286
80	312
90	342
95	374
98	400
1% residue	
1% Loss.	
100%	

Method, A. S. T. M.

MAY ENLARGE REFINERY

CHATHAM, Ont., May 8.—It is reported that the Queen City Oil Co. and the Arro Oil & Refining Co., operating the Maple Leaf refinery at Coutts, Alberta, are planning to double the capacity of the plant, at present 2,500 bbls. a day.

A. S. T. M. MEETING AT ATLANTIC CITY, N. J.

The twenty-ninth annual meeting of the American Society for Testing Materials will be held at the Chalfonte-Haddon Hall, Atlantic City, N. J., June 21 to 25, according to an official announcement. Committee D-2 on petroleum products and lubricants will meet during the annual meeting and will make its report on June 24.

As announced in the provisional program, the report of Committee D-2 will cover the following features.

"Presents new tentative methods for burning quality of mineral colza oil and for determination of thermal value of fuel oil. Recommends that the method of test for viscosity of petroleum products and lubricants be advanced to standard. Recommends revisions of methods of test for distillation of gasoline, naphtha, kerosene and similar petroleum products, of analysis of grease, of test for penetration of greases, for burning quality of long-time burning oil for railway use and for sulfur in naphthas and illuminating oils."

NEW BLUE GASOLINE

SHREVEPORT, La., May 8.—A new motor fuel is being manufactured by the Shreveport Producing & Refining Co. at its plant near Jewella. The gasoline which will be colored blue by a special patented process will have a gravity of between 60 and 62, according to W. T. Christman, superintendent of the plant.

TO CONVERT RESIDUE INTO BURNABLE GAS

A New York inventor has developed a process for converting crude residuum and other oil refuse into burnable gas. By his invention refuse oil, which until now has been considered worthless and which has caused no little trouble in disposing of it except by polluting streams and beaches, will be saved and put to commercial use.

Experiment so far have been limited but it has been found that refuse having as high as 80 per cent water content can be converted into furnace fuel.

IS COMPLETING LINES TO INTEROCEAN FIELD

Signal Gasoline Co., Inc., is completing vacuum and residue lines to the new Inter-Ocean Oil Co. Field north of Bristow, Okla., and has started construction on a three-unit booster to serve this area.

The booster is being constructed so the company can add the necessary adsorption plant equipment as the field develops. The new units will include Clark direct-driven gas engine compressors and will be in operation by July 1. The capacity of the Signal plant at present is 3,000 gallons of gasoline daily.

SOUTHWEST TEXAS

SAN ANTONIO, Tex., May 11.—The Johnson and Detray gas well survey 1,012, in the Carolina-Texas Field of Webb County, caught fire Sunday. It came in January 26, and has run wild ever since. Pumps succeeded in lowering the water in the crater so that 14-inch casing could be placed over the 8-inch in the bottom of the crater and the gas escaped through the 14-inch as a preliminary step to closing the well in when it caught fire.

EL DORADO RECOVERY PLANT

EL DORADO, Ark., May 8.—Root Refineries, Inc., is building a gasoline recovery plant in connection with its refinery at El Dorado. The plant will handle 1,500,000 feet of gas daily. It is being built by the F. E. Gilmore Co.

AMONG THE TECHNICAL MEN

Sylvester Dayson, manager of the refining department of the Lion Oil Refining Co., El Dorado, Ark., is one of several outstanding technical men in the United States who received their early training in foreign countries.

Sylvester Dayson

Mr. Dayson was born in Marseilles, France, and received his early education in that country. Later he graduated from the University of Bucharest in Rumania. His father was engaged in the oil business in that country and the younger Dayson's early experience both in the producing and refining divisions was obtained at that time. He had charge of the construction and operation of different plants previous to the start of the World War in 1914.

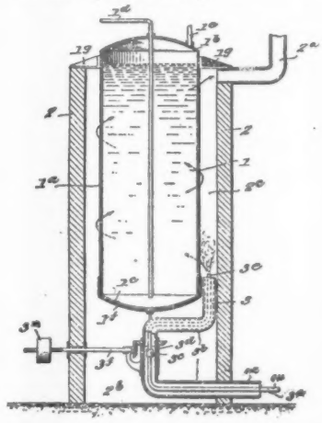
After the opening of the war, Mr. Dayson was for a time engaged as an engineer for the French Government in work connected with oil business. Later he joined the aviation branch of the service and served with distinction until the close of the war.

At the close of the war, Mr. Dayson decided to re-enter the oil business in the United States. He was connected as a chemist and engineer with several of the largest refineries in the East and Gulf Coast areas. He also had charge of the construction of a refinery in Kentucky.

He was employed by the Producers & Refiners Corp. at its Casper, Wyo. refinery in consulting work when he accepted his present position with the Lion Oil Refining Co., about two years ago. Mr. Dayson's early experience in handling heavy crudes of the Rumanian fields has proved of great value to him in solving the operating problems at the Lion refinery, which operates exclusively on the heavy Smackover crude. Under his direction the plant which is the largest in Arkansas has added to the number of products refined as well as increasing the yield of gasoline from the heavy crude.

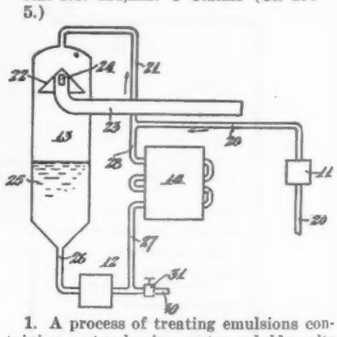
Recent Patents

1,581,896. Method of Heating Oil. Frank E. Wellman, Kansas City, Kans., assignor to the Kansas City Gasoline Co., Kansas City, Kans., a corporation of Kansas. Original application filed December 15, 1921. Serial No. 523,062. Divided and this application filed January 30, 1922. Serial No. 532,873. Renewed February 12, 1926. Eight claims. (Cl. 196—47.)



1. The method of cracking oil without liability to burning on the container of precipitated constituents, which consists in maintaining the bottom of the body of oil at a temperature below that at which burning can occur, and applying heat in rotary progression at constantly changing points to said body above the bottom thereof.

1,580,956. Process of Dehydrating Emulsions. William Cameron, Suez, Egypt, assignor to Simplex Refining Co., San Francisco, Calif., a corporation of California. Filed November 15, 1920. Serial No. 424,112. 5 Claims (Cl. 196—5.)



1. A process of treating emulsions containing water having water soluble salts in solution therein comprising injecting said emulsion into a body of oil having a temperature above the boiling point of water, allowing the water vapor so produced to escape freely and maintaining the temperature of said oil by circulating dehydrated portions thereof over heated metal surfaces.

Ample fillets are provided at all intersections on

HUGHES CHROME NICKEL STEEL VALVES

HUGHES TOOL COMPANY

Branch Plants
LOS ANGELES, CALIF.
OKLAHOMA CITY, OKLA.

MAIN OFFICE AND PLANT
HOUSTON, TEXAS

Export Office
NEW YORK CITY, N.Y.

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

GASOLINE AND NAPHTHA

	May 11		May 4		Apr. 27	
OKLAHOMA (Group 3)—						
50-52 450 end point	.10½	.10¾	.10½	.10¾	.09½	.09¾
56-58 450 end point	.10¾	.10⅞	.11	.11⅛	.10	.10⅛
58-60 450 end point	.10⅞	.11	.11⅛	.11¼	.10¼	.10⅜
58 60 437 end point (U. S. Motor)	.11⅛	.11⅜	.11¼	.11½	.10½	.10¾
60-62 400 end point	.12	.12¼	.12¼	.12½	.11½	.11¾
64-66 375 end point	.12⅝	.12⅞	.12¾	.13	.12½	
68-70 360 end point	.13	.13¼	.13¼	.13½	.12⅞	.13
KANSAS—						
58-60 437 end point (U. S. Motor)	.11¾	.12	.11¾	.12	.11	.11¼
NORTH TEXAS—						
48-50 450 end point (Naphtha)	.10½	.10⅝	.10¼	.10½	.09⅜	.09½
50-52 450 end point (Naphtha)	.10½	.10⅜	.10½	.10⅝	.09½	.09⅝
56 58 450 end point	.10⅝	.10¾	.10⅞	.11⅛	.10	
58-60 437 end point (U. S. Motor)	.11	.11¼	.11¼	.11½	.10½	.10¾
60-62 400 end point	.11¾	.12	.12¼	.12½	.11½	.11¾
64-66 390 end point	.12¼	.12¾	.12½		.12	.12⅛
64 66 375 end point	.12½	.12¾	.12¾	.13	.12⅜	.12½
68-70 360 end point	.12⅝	.13	.13⅛	.13⅜	.12¾	.13
NORTH LOUISIANA—						
56-58 450 end point	.11	.11¼	.11	.11¼	.10¼	.10½
58-60 437 end point (U. S. Motor)	.11¼	.11½	.11¼	.11⅝	.10¾	.11
64-66 375 end point	.13	.13⅛	.13⅛	.13⅜	.12¾	.13
ARKANSAS—						
58-60 450 end point	.11¼	.11½	.11½	.11¾	.10¾	.11
58-60 437 end point (U. S. Motor)	.11½	.11⅝	.11¾	.12	.11	
64-66 375 end point	.13	.13⅛	.13	.13¼	.12½	.12¾
ROCKY MOUNTAIN STATES—						
*58-60 437 end point (U. S. Motor)	.14⅛	.14¼	.14¼	.14½	.13½	.13¾
PENNSYLVANIA—						
52 Naphtha	.12¼	.12½	.12¼	.12½	.11¾	.12
54 Naphtha	.12½	.12¾	.12½	.12¾	.12	.12¼
56 Naphtha	.12¾	.13	.12¾	.13	.12¼	.12½
58 Naphtha	.13¼	.13½	.13¼	.13½	.12¾	.13
60 Gasoline	.14	.14¼	.13¾	.14	.13½	.13¾
62 Gasoline	.14½	.14¾	.14	.14½	.13¾	.14
64 Gasoline	.14¾	.15	.14½	.14⅞	.14½	.14¾
66 Gasoline	.16	.16¼	.16	.16¼	.16	.16¼
68-70 Gasoline	.19½	.20	.19	.19½	.19	.19½
CALIFORNIA—						
54-58 437 end point (U. S. Motor) domestic	.12½	.13	.12½	.13	.12½	.13
CHICAGO DISTRICT (Based on Group 3)—						
50-52 450 end point (Naphtha)	.10¾	.11	.10½	.10¾	.09½	.09¾
56-58 450 end point	.11	.11⅛	.11		.10	.10⅛
58-60 437 end point (U. S. Motor)	.11¼	.11½	.11¼	.11½	.10½	.10¾
60-62 400 end point	.12¼	.12½	.12¼	.12½	.11½	.11⅞
64-66 375 end point	.13	.13⅛	.13		.12⅝	.12½
68-70 360 end point	.13¼	.13½	.13¼	.13¾	.13	.13¼

*Colorado points.

NATURAL GASOLINE

	May 11		May 4		Apr. 27	
OKLAHOMA (Group 3)—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.10½		.10½	.11	.09	.09¼
Grade A, 72-79.9, 375 e.p., rec. 90%	.10½		.10½	.11	.09	.09¼
Grade BB, 84 92, 375 e.p., rec. 85%	.10	.10¼	.10	.10¼	.08¼	.08½
Grade B, 76-83.9, 375 e.p., rec. 85%	.10	.10¼	.10	.10¼	.08¼	.08½
Grade C, 80-90, 375 e.p., rec. 78%	.09¾	.10	.09½	.09¾	.08	.08¼
NORTH TEXAS—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.10½		.10½	.10¾	.09	.09¼
Grade A, 72-79.9, 375 e.p., rec. 90%	.10½		.10½	.10¾	.09	.09¼
Grade BB, 84-92, 375 e.p., rec. 85%	.10	.10¼	.10	.10¼	.08¼	.08½
Grade B, 76-83.9, 375 e.p., rec. 85%	.10	.10¼	.10	.10¼	.08¼	.08½
Grade C, 80-90, 375 e.p., rec. 70%	.09¾	.10	.09½	.09¾	.08	.08¼
NORTH LOUISIANA—						
Grade A, 72-79.9, 375 e.p., rec. 90%	.11	.11¼	.11	.11¼	.09¼	.09½
Grade B, 76-83.9, 375 e.p., rec. 85%	.10¾	.11	.10¾	.11	.09	.09¼
Grade C, 80-90, 375 e.p., rec. 78%	.10¼	.10½	.10¼	.10½	.08¾	.09
CALIFORNIA—						
78-85 absorption, 360-390 end point	.15½	.16	.15½	.16	.15½	.16
78-84 compression, 350 end point	.15½	.16	.15½	.16	.15½	.16
CHICAGO DISTRICT (Based on Group 3)—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.11	.11¼	.10½	.10¾	.09	.09¼
Grade A, 72 79.9, 375 e.p., rec. 90%	.11	.11¼	.10½	.10¾	.09	.09¼
Grade BB, 84-92, 375 e.p., rec. 85%	.10½	.10¾	.10¼	.10½	.08½	.08¾
Grade B, 76-83.9, 375 e.p., rec. 85%	.10½	.10¾	.10¼	.10½	.08¼	.08¾
Grade C, 80-90, 375 e.p., rec. 78%	.10	.10¼	.10	.10¼	.08	.08¼

MOTOR NATURAL GASOLINE (BLENDS)

	May 11		May 4		Apr. 27	
OKLAHOMA (Group 3)—						
60 62 450 end point	.11	.11¼	.11	.11¼	.10¼	
64-66 437 end point	.11¼		.11¼	.11½	.10¼	
NORTH TEXAS—						
64-66 437 end point	.11	.11¼	.11	.11¼	.10⅛	.10¼
PENNSYLVANIA—						
*60-62	.12¼	.12½	.12¼	.12½	.12¼	.12½
*64-66	.12½	.12¾	.12½	.12¾	.12½	.12¾
*66-68	.12¾	.13	.12¾	.13	.12¾	.13
*68-70	.12¾	.13	.12¾	.13	.12¾	.13
CHICAGO DISTRICT (Based on Group 3)—						
60-62 450 end point	.11	.11¼	.10½	.10¾	.09½	.09¾
64-66 437 end point	.11¼	.11½	.10½	.11	.10	.10¼

*At Sistersville, W. Va.

BURNING OIL

	May 11		May 4		Apr. 27	
KANSAS—						
41-43 water white Kerosene	.10½	.10¾	.09¼	.09⅝	.08¼	.08½
OKLAHOMA (Group 3)—						
41-43 water white Kerosene	.10	.10¼	.09	.09½	.08¼	
42-44 water white Kerosene	.10¼	.10½	.09½		.08⅜	.08½
NORTH LOUISIANA—						
41-43 prime white Kerosene	.10¼	.10½	.09¼	.09½	.08¼	.08½
ROCKY MOUNTAIN STATES—						
*40-41 water white Kerosene	.13	.13¼	.12¼	.12½	.11¼	.11⅜
NORTH TEXAS—						
41-43 water white Kerosene	.10		.09	.09¼	.08	.08⅛
ARKANSAS—						
41-43 water white Kerosene	.10¼	.10½	.09½	.09¾	.08⅜	.08½
PENNSYLVANIA—						
43 Kerosene prime white	.10¼	.10½	.09½	.09¾	.08¼	.08½
45 Kerosene water white	.10¾	.11	.10	.10¼	.09	.09¼
46 Kerosene water white	.11	.11¼	.10¼	.10½	.09½	.09⅝
47 Kerosene water white	.11¼	.11½	.10½	.10¾	.10	.10¼
34 Neutral	.08	.08¼	.08	.08¼	.08	.08½
34 Sundebloom Neutral	.09	.09¼	.09	.09¼	.09	.09½
36 Miners' Neutral	.07¼	.07½	.07	.07¼	.07	.07½
300 Mineral Seal	.09	.09¼	.08¼	.08½	.08	.08¼
CALIFORNIA—						
38-40 water white (high burning test)	.07½	.08½	.07½	.08¼	.07½	.08¼
Engine distillate, 43-45 445 end point	.10¼	.10½	.10¼	.10½	.10¼	.10½
Engine distillate, 42-44 450 end point	.10	.10¼	.10	.10¼	.10	.10¼
CHICAGO DISTRICT (Based on Group 3)—						
41-43 water white Kerosene	.10	.10¼	.09¼	.09½	.08¼	.08½
42-44 water white Kerosene	.10¼	.10½	.09½	.09⅝	.08½	

*Colorado points.

FUEL OILS

	May 11		May 4		Apr. 27	
KANSAS—						
24-26 Fuel Oil	1.45	1.50	1.45	1.55	1.45	1.50
32-36 Gas Oil	.04⅜	.04½	.04⅜	.04½	.04¼	.04⅜
38-40 Distillate	.04⅝	.04¾	.04⅝	.04¾	.04½	.04⅝
OKLAHOMA (Group 3)—						
Below 22 Fuel Oil (sellers' cars)	1.25	1.30	1.30		1.27½	1.30
22-26 Fuel Oil (sellers' cars)	1.27½	1.30	1.32½	1.35	1.32½	1.35
24-26 Fuel Oil (sellers' cars)	1.35	1.40	1.40	1.42½	1.40	
26-30 Fuel Oil (sellers' cars)	1.45		1.45	1.50	1.45	1.50
28-30 Fuel Oil (sellers' cars)	1.50	1.52½	1.50	1.60	1.55	1.60
32 36 Gas Oil (straw)	.04½	.04⅝	.04¼	.04⅜	.04¼	.04⅜
36-38 Distillate	.04½	.04⅝	.04½	.04⅝	.04⅜	.04½
38-40 Straw Distillate	.04⅝	.05	.04⅝	.04¾	.04½	.04⅝
NORTH TEXAS—						
24-26 Fuel Oil (sellers' cars)	1.30	1.35	1.37½	1.40	1.37½	1.40
32-36 Gas Oil (straw)	.03⅞	.04	.04	.04¼	.04⅛	.04¼
38-40 Straw Distillate	.04⅜	.04½	.04⅜	.04½	.04⅜	.04½
NORTH LOUISIANA—						
18-20 Fuel Oil	1.22½	1.25	1.22½	1.25	1.20	1.25
32-36 Gas Oil	.04⅛	.04¼	.04⅛	.04¼	.04	.04½
ARKANSAS—						
38-40 Distillate	.04¾	.05	.04¾	.05	.04¾	.05
32-36 Gas Oil	.04⅜	.04½	.04⅜	.04½	.04⅜	.04½
16-20 Refinery Fuel Oil	1.20	1.22½	1.20	1.22½	1.20	
GULF COAST (South Texas)—						
Gas Oil	.05	.05¼	.05	.05¼	.05	.05¼
Fuel Oil	1.65	1.70	1.65	1.70	1.65	1.70
PENNSYLVANIA—						
30-34 Fuel Oil	.06¼	.06½	.06⅛	.06¼	.06	.06⅛
36-40 Fuel Oil	.07	.07¼	.06½	.06¾	.06⅜	.06½
CALIFORNIA—						
33-35 Distillate	.04¾	.05	.04¾	.05	.04¾	.05
27-35 Distillate	.04	.04½	.04	.04½	.04	.04½
15-20 Fuel Oil (at tide water)	1.00	1.04	1.00	1.04	1.00	1.04
27 plus Diesel	1.15	1.19	1.15	1.19	1.15	1.19
CHICAGO DISTRICT (Based on Group 3)—						
24-26 Fuel Oil (sellers' cars) Group 3	1.35	1.37½	1.40	1.45	1.37½	1.40
22-26 Fuel Oil (sellers' cars)	1.32½	1.35	1.35	1.37½	1.32½	1.35
18-22 (El Dorado)	1.27½	1.30	1.30	1.32½	1.30	1.32½
18-20 (Smackover)	1.15	1.20	1.12½	1.15	1.07½	1.10
32-36 Gas Oil	.04⅜	.04¼	.04⅜	.04¼	.04⅜	.04¼
36-38 Distillate	.04¼	.04⅜	.04¼	.04⅜	.04¼	.04½
38-40 Straw Distillate	.04½	.04¾	.04⅝	.05	.04½	.04¾

LUBRICATING OILS AND WAX

	May 11		May 4		Apr. 27	
OKLAHOMA (Group 3)—						
70-80 vis., 2½ color, 20-25 cold test	.06	.07	.06	.07	.06	.07
100 vis., 3 color, 20 25 cold test	.06½	.07	.06½	.07	.06½	.07
100 vis., 2 color, 20-25 cold test	.07	.07½	.07	.07½	.07	.07½
150 vis., 4 color, 20-25 cold test	.09¼	.09¾	.09¼	.09¾	.09¼	.09¾
150 vis., 3 color, 20-25 cold test	.09½	.10	.09½	.10	.09½	.10
180 vis., 4 color, 23-28 cold test	.10	.10½	.10	.10½	.10	.10½
180 vis., 3 color, 23-28 cold test	.10¼	.10½	.10¼	.10½	.10¼	.10½
200 vis., 4 color, 23-28 cold test	.11	.11½	.11	.11½	.11	.11½
200 vis., 3 color, 23-28 cold test	.11¼	.11½	.11¼	.11½	.11¼	.11½
220 vis., 4 color, 25-30 cold test	.14	.14½	.14	.14½	.14	.14½
220 vis., 3 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
240 vis., 4 color, 25-30 cold test	.14	.14½	.14	.14½	.14	.14½
240 vis., 3 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
280 vis., 4 color, 25-30 cold test	.15½	.16	.15½	.16	.15½	.16
280 vis., 3 color, 25-30 cold test	.16½	.17	.16½	.17	.16½	.17
180 vis., 5 color, 23-28 cold test	.09¾	.10¼	.09¾	.10¼	.09¾	.10¼
200 vis., 5 color, 23 28 cold test	.10¾	.11¼	.10¾	.11¼	.10¾	.11¼
220 vis., 5 color, 25-30 cold test	.14	.14½	.14	.14½	.14	.14½
240 vis., 5 color, 25-30 cold test	.13	.14	.13	.14	.13	.14
280 vis., 5 color, 25-30 cold test	.15½	.16	.15½	.16	.15½	.16
Cylinder Stocks:						
180 200 vis., S. R. green, 40-45 cold test	.08½	.11	.08½	.11	.08½	.11
190-200 vis., S. R. green, 40-45 cold test	.08	.08½	.08	.08½	.08	.08½
170-190 dark green, 40-45 cold test	.06	.06½	.06	.06½	.06	.06½
190-200 vis. @ 210 "D" Bright Stock	.33	.35	.33	.35	.33	.35
200-210 vis. @ 210 "E" Bright Stock	.30	.31	.30	.31	.30	.31
150 vis. @ 210 "E" Bright Stock	.27	.28	.27	.28	.27	.28
150 vis. @ 210 "D" Bright Stock	.28	.31	.28	.31	.28	.31
Waxes:						
122-124 White Crude Scale Wax	.04¾	.04⅞	.05		.05	
PENNSYLVANIA—						
150, 3 color	.22¼		.21½		.21½	
180, 3 color	.26		.26		.26	
200, 3 color	.28		.28		.28	
220, 3 color	.30		.30		.30	
600, steam refined	.15¾		.15¾		.15¾	
635, steam refined	.19½		.19½		.19½	

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

650, steam refined	.21		.21		.21	
600, Pennsylvania flash	.26½		.26½		.26½	
630, Pennsylvania flash	.34		.34		.35	
*550, E filtered	.19½		.19½		.19½	
600, E filtered	.20¼		.20¼		.20¼	
*600, E filtered	.21¼		.21¼		.21¼	
600, D filtered	.26¾		.26¾		.26¾	
550, E filtered	.18½	.18¾	.18½	.18¾	.18½	.18¾
550, D filtered	.22¼	.22½	.22¼	.22½	.22¼	.22½
Pennsylvania Bright Stock	.39		.39		.38	
122-124 White Crude Scale Wax	.05⅛	.05¼	.05⅛	.05¼	.05⅛	.05¼
†124-126 White Crude Scale Wax	.05¼	.05⅜	.05¼	.05⅜	.05¼	.05⅜

*At Warren, Pa. †At New York City.

GULF COAST (South Texas)—						
Zero Black	.06	.07	.06	.07	.06	.07
No. 2 color, 100 vis., pale oil	.07½	.08	.07½	.08	.07½	.08
No. 2½ color, 150 vis., pale oil	.10	.10½	.10	.10½	.10	.10½
No. 3 color, 200 vis., pale oil	.11	.11½	.11	.11½	.11	.11½
No. 3½ color, 300 vis., pale oil	.13	.13½	.13	.13½	.13	.13½
No. 3¾ color, 500 vis., pale oil	.15	.15½	.15	.15½	.15	.15½
No. 4 color, 750 vis., pale oil	.19	.20	.19	.20	.18½	.19
No. 1½ plus color, 150 vis., pale filtered	.22		.22		.22	
No. 2 plus color, 200 vis., pale filtered	.23½		.23½		.23½	
No. 2 color, 300 vis., pale filtered	.27½		.27½		.27½	
No. 2½ color, 500 vis., pale filtered	.31½		.31½		.31½	
No. 2½ color, 750 vis., pale filtered	.41½		.41½		.41½	
No. 5 to 6 color, 200 vis., red oil	.09½	.10	.09½	.10	.09½	.10
No. 5 to 6 color, 300 vis., red oil	.11½	.12	.11½	.12	.11½	.12
No. 5 to 6 color, 500 vis., red oil	.13	.13½	.13	.13½	.13	.13½
No. 5 to 6 color, 750 vis., red oil	.17	.18	.17	.18	.17	.18
CALIFORNIA—						
130 pale, 2½ 3 color	.10	.11½	.10	.11½	.10	.11½
200 vis., 2½-3 color	.13½	.14½	.13½	.14½	.13½	.14½
300 vis., 3 -3½ color	.15	.16	.15	.16	.15	.16
350 vis., 3½-4 color	.16½	.17½	.16½	.17½	.16½	.17½
400 vis., 3½-4 color	.18	.19	.18	.19	.18	.19
Red Neutrals:						
200 vis., 4½-5 color	.12	.13	.12	.13	.12	.13
300 vis., 5 -6 color	.13	.14	.13	.14	.13	.14
400 vis., 5 -6 color	.15	.16	.15	.16	.15	.16
500 vis., 4½-5 color	.18	.19	.18	.19	.18	.19
500 vis., 6 -6½ color	.16	.17	.16	.17	.16	.17
600 vis., 6½ plus color	.17	.18	.17	.18	.17	.18

Note: Bright stocks are not manufactured commercially on the Pacific Coast.

NEW YORK DOMESTIC MARKET

Bayonne Refinery Prices:	May 11	May 4	Apr. 27
U. S. Motor Gasoline, 58-60 437	.14	.13½	.13½
*Bunker Oil, 14-16 Be.	1.75	1.75	1.75
*Diesel Oil, New York City	2.41½	2.41½	2.41½
Furnace Oil, New York City	.10	.10	.10
Gas Oil, 28 plus	.06½	.06½	.06½
41-43 Kerosene prime white	.09	.09	.08¾

*Lighterage 6.5c a barrel extra.

NEW YORK EXPORT PRICES

Motor Gasoline:	May 11	May 4	Apr. 27
58-60 Be. gravity, in cases	.28.90	.28.90	.28.40
Standard white Kerosene, in cases	.19.15	.18.65	.18.40
Water white Kerosene, in cases	.20.40	.19.90	.19.90
Export Gasoline, 64-66 Be.	.15½	.16½	.16½
†Lubricating Oils (in bulk):			
Cylinder Stock, light filtered, 60 s.r.	.29	.29	.29
No. 5 Bright Stock, .897 spec. grav.	.40	.40	.40
No. 1 White Neutral, .878 spec. grav.	.35	.35	.35
Pale Oil, "25" .898 spec. grav.	.12	.12	.12
Pale Oil, "28" .892 spec. grav.	.07½	.07½	.07½
No. 3 red oil, 160 vis., 7 color	.10¾	.10¾	.10¾
No. 2 red oil, .903 spec. grav.	.11½	.11½	.11½
No. 1 red oil, .905 spec. grav., 265 vis.	.13	.13	.13
Polar red oil, .903 spec. grav., 295 vis.	.13½	.13½	.13½
Paraffin Wax:			
120-122 a.m.p., per lb.	.05⅞	.05⅞	.05⅞
125-127 a.m.p., per lb.	.06	.06	.06
130-132 a.m.p., per lb.	.06¼	.06¼	.06¼
135-137 a.m.p., per lb.	.06⅞	.06⅞	.06⅞
Petrolatum, in bbls., car load lots, per lb.:			
Amber	.03¼	.03⅜	.03⅜
Light amber	.03½	.03⅝	.03⅝
Cream	.05½	.05¾	.05¾
Lily white	.08	.08	.08
Snow white	.09¼	.09½	.09½

†All lub prices in barrels.

LOS ANGELES EXPORT PRICES

	May 11		May 4		Apr. 27	
Kerosene water white	.05½	.06½	.05½	.06½	.05½	.06½
U. S. Motor Gasoline, 54-56 437 e.p.	.11	.11¼	.11	.11¼	.11	.11¼

CRUDE OIL PRICES

OKLAHOMA, KANSAS AND NORTH TEXAS

***Prairie Oil & Gas Co.**

(Oklahoma, Kansas and North and East Central Texas)

28° to 28.9°	$1.40
29° to 29.9°	1.48
30° to 30.9°	1.56
31° to 31.9°	1.64
32° to 32.9°	1.72
33° to 33.9°	1.80
34° to 34.9°	1.88
35° to 35.9°	1.96
36° to 36.9°	2.04
37° to 37.9°	2.12
38° to 38.9°	2.20
39° to 39.9°	2.28
40° to 40.9°	2.36
41° to 41.9°	2.44
42° to 42.9°	2.52
43° to 43.9°	2.60
44° to 44.9°	2.68
45° to 45.9°	2.76
46° to 46.9°	2.84
47° to 47.9°	2.92
48° to 48.9°	3.00
49° to 49.9°	3.08
50° to 50.9°	3.16
51° to 51.9°	3.24
52° and above	3.32

*Other major purchasers except as noted below.

Champlin Refining

(Garber and Tonkawa)

Schedule based on Prairie Oil & Gas Co. paying 10 cents additional for each grade of crude above 38° gravity.

Humble Oil & Refining Co.

(North and East Central Texas, Ranger, Mexia, Powell, Richland, Wortham, Currie, Moran, Big Lake and Lytton Springs)

Same prices as Prairie Oil & Gas Co. schedule.

Magnolia Petroleum Co.

(Oklahoma, Kansas and North and East Central Texas, except Corsicana heavy, and Lytton Springs of South Central Texas)

Below 28°	$1.20

Other grades same as Prairie Oil & Gas Co.

Iatan	$1.15
Corsicana heavy	1.15

(Panola County)

34° to 34.9°	$1.70
35° to 37.9°	1.85
38° and above	2.00

Texhoma Oil & Refining Co.

(Wichita Falls, Tex., District)

Below 32°	$1.88
32° to 32.9°	1.94
33° to 33.9°	2.00
34° to 34.9°	2.06
35° to 35.9°	2.12
36° to 36.9°	2.18
37° to 37.9°	2.25
38° to 38.9°	2.30
39° to 39.9°	2.36
40° to 40.9°	2.42
41° to 41.9°	2.48
42° to 42.9°	2.54
43° to 43.9°	2.60
44° and above	2.69

Gypsy Oil Co.

(Bristow, Glenn Pool, Morris and Perryman, Okla.)

25° to 25.9°	$1.16
26° to 26.9°	1.24
27° to 27.9°	1.32

Other grades same as Prairie Oil & Gas Co.

TEXAS PANHANDLE

Kay County Gas Co.

***Magnolia Petroleum Co.**

Below 31°	$1.20
31° to 33.9°	1.35
34° to 36.9°	1.55
37° to 39.9°	1.70
40° and above	1.75

*Magnolia Petroleum Co. pays only $1 for crude below 31 gravity.

GULF COAST

***Humble Oil & Refining Co.**

Grade A	$1.50
Grade B—	
Below 25°	1.40
25° to 25.9°	1.45
26° to 26.9°	1.50
27° to 27.9°	1.55
28° to 28.9°	1.60
29° to 29.9°	1.65
30° to 30.9°	1.70
31° to 31.9°	1.75
32° to 32.9°	1.80
33° to 33.9°	1.85
34° to 34.9°	1.90
35° and above	1.95
Sour Lake (36° gravity) (The Texas Company)	1.79
Boling	1.50
High Island	1.40

*And other major purchasers, including The Texas Company, and the Sun Oil Co. High Island crude posted by the Sun Oil Co.

SOUTH CENTRAL AND SOUTHWEST TEXAS

***Magnolia Petroleum Co.**

Luling (contract)	$1.20
Mirando (Webb, Jim Hogg and Zapata Counties)	1.15
Rockdale-Minerva (Milam County)	1.25
Thrall	1.00
Callihan (Live Oak and McMullen Counties)	1.65
§Lockhart (Lytton Springs)	

Somerset (Grayburg Refining Co.)

28° to 28.9°	1.20
29° to 29.9°	1.30
30° to 30.9°	1.56
31° to 31.9°	1.64
32° to 32.9°	1.72
33° to 33.9°	1.80
34° to 34.9°	1.88
35° to 35.9°	1.96
36° to 36.9°	2.04
37° to 37.9°	2.12
38° and above	2.20

***Texpata Pipe Line Co. also posts in Mirando Field paying same prices as Magnolia Petroleum Co. Crown Central Petroleum Co. pays $1.20 for Mirando crude.**

§Lockhart prices same as for North and East Central Texas. Lockhart posted by Magnolia Petroleum Co. and Humble Oil & Refining Co.

ARKANSAS AND NORTH LOUISIANA

Standard Oil Co. of Louisiana

Caddo below 32°	$1.85
32° to 34.9°	2.00
35° to 37.9°	2.10
38° and above	2.20
Homer below 31°	1.60
31° to 32.9°	1.75
33° to 34.9°	1.85
35° and above	1.95
Haynesville below 33°	1.75
33° and above	1.85
El Dorado below 33°	1.75
33° to 34.9°	1.85
35° to 36.9°	1.95
37° and above	2.05
Bull Bayou, 32° to 34.9°	1.70
35° to 37.9°	1.85
38° and above	2.00
Cotton Valley	1.10
DeSoto	2.05
Crichton	1.85
Bellevue	1.50
Smackover, below 24°	1.00
24° to 24.9°	1.25
25° to 25.9°	1.30
26° to 26.9°	1.35
27° and above	1.40
*Stephens, Ark., below 26°	1.30
26° and above	1.50
**Calion (East El Dorado)	.95
§Urania	1.30

Other companies posting in these fields are: Gulf Pipe Line Co.; Atlantic Oil Producing Co. in Homar, Haynesville, El Dorado and Smackover; The Texas Company in Caddo, Bull Bayou, DeSoto, Crichton and Smackover.

*Posted by the Atlantic Oil Producing Co.
**Posted by the Gulf Pipe Line Co.
§Posted by the Louisiana Oil Refining Corp.

ROCKY MOUNTAIN STATES

Ohio Oil Co.—Midwest Refining Co.

Rock Creek (Wyo.)	$2.00
Salt Creek—	
29° to 29.9°	1.48
30° to 30.9°	1.56
31° to 31.9°	1.64
32° to 32.9°	1.72
33° to 33.9°	1.80
34° to 34.9°	1.88
35° to 35.9°	1.96
36° to 36.9°	2.04
37° and above	2.12
Big Muddy	2.00
Mule Creek	1.50
Grass Creek, light	2.15
Grass Creek, heavy	.90
Elk Basin	2.15
Lance Creek	2.15
Osage	2.15
Lost Soldier (contract)	1.10
Greybull-Torchlight	1.90
Hamilton Dome	1.35
Cat Creek (Mont.)	2.15
Sunburst (Mont.)	1.05
Florence (Colo.)	1.35
Artesia	1.70
Hogback (N. M.)	2.20

Note: Salt Creek, Osage, Cat Creek and Hogback posted by Midwest Refining Co., and the remainder by the Ohio Oil Co. Both companies post Grass Creek light and Elk Basin.

EASTERN STATES

Joseph Seep Purchasing Agency

Penna Grade Oil in New York Transit Lines (New York)	$3.65
Bradford District Oil in National Transit Lines (Pennsylvania)	3.65
Penna Grade Oil in National Transit Lines (Pennsylvania)	3.55
Penna Grade Oil in Southwest Pa. Line Lines (West Virginia)	3.50

(Continued on Page 138)

TANK WAGON MARKETS

Tank wagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns, May 11.

ALL TANK WAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

STANDARD OIL CO. (INDIANA)

Main Service Station Price

	Gasoline			Kero.
	Tank wagon	Service station	Inclds tax of	Tank wagon
Chicago Dist.—				
†Less than 100 gals.	18.0	20.0	...	14.5

Tank wagon prices on April 19, 1922: g. up 1½c; May 8, up 1c; June 27, g. and k. up 1c; July 19, g. down 2c, k. down 1c; Oct. 10, g. down 2c; Oct. 21, g. down 1c; Feb. 5, 1923, g. up 1c; Feb. 20, g. up 1c; Aug. 14, g. down 6.6c; Oct. 4, k. down 1½c; Nov. 10, g. down 1.4c; Dec. 20, g. up 2c; Jan. 12, 1924, g. up 2c, k. up 1c; Feb. 5, g. up 2c, k. 1c; July 18, g. down 1c; July 30, g. and k. down 1c; Sept. 12, g. down 2c; Jan. 23, 1925, g. up 1c; Jan. 26, g. up 1c; Jan. 31, g. up 1c; Feb. 12, g. up 2c, k. up 1c; April 19, g. down 1c; July 14, g. up 1c; Aug. 25, g. down 2c, k. down 1c; Sept. 1, g. down 1c; Feb. 4, 1926, g. up 1c, k. up 1c; April 16, 1926, k. up 1c; April 24, 1926, k. up ½c; April 29, 1926, g. up 1c, k. up ½c.

Decatur, Ill.	18.2	20.2	...	15.0
East St. Louis	17.1	19.35	...	17.0
Joliet	18.4	20.4	...	15.2
Peoria	18.2	20.2	...	16.0
Quincy	18.2	20.2	...	14.5
Davenport, Ia.	20.5	22.5	2.0	15.4
Des Moines	21.5	23.5	2.0	15.4
Keokuk	21.5	23.5	2.0	15.4
Sioux City	20.0	22.0	2.0	15.0
Duluth, Minn.	21.5	23.5	2.0	16.1
Minneapolis	21.2	23.2	2.0	16.1
La Crosse, Wis.	21.2	23.2	2.0	15.6
Milwaukee	20.1	22.1	2.0	14.5
Madison	20.2	22.2	2.0	15.0
Detroit, Mich.	20.8	22.8	2.0	15.7
Grand Rapids	20.7	22.7	2.0	15.6
Saginaw	20.9	22.9	2.0	15.8
Evansville, Ind.	21.6	23.0	3.0	15.0
Fort Wayne	21.4	23.4	3.0	15.4
Indianapolis	21.2	23.2	3.0	15.1
South Bend	21.4	23.4	3.0	15.4
Fargo, N. D.	21.9	23.9	1.0	18.1
Huron, S. D.	23.0	25.0	3.0	16.6
Sioux Falls	21.5	23.5	3.0	16.1
*K. C., Mo.	20.9	22.9	3.0	13.8
*Springfield	20.8	22.8	3.0	14.7
*St. Louis	19.6	21.9	2.5	14.5
*St. Joseph	19.5	21.5	2.5	14.4
‡Wichita, Kan.	18.8	20.8	2.0	13.8
Bartlesville, Ok.	19.8	22.8	3.0	14.8
Shreveport, La.	17.0	20.0	2.0	13.5
Memphis, Tenn.	20.0	23.0	3.0	15.5
Chattanooga	22.0	25.0	3.0	16.0
Knoxville	22.0	25.0	3.0	16.5
Nashville	21.0	24.0	3.0	16.0
Bristol	22.5	25.5	3.0	16.0
Little Rock, Ark	20.0	23.0	4.0	14.5

*State tax is 2c. Remainder is city tax.
†Quantity price on more than 100 gallons, 16.9.
‡At all Kansas points a discount of 1 cent a gallon is allowed from the tank wagon postings on dumps of 50 gallons or more.

The following monthly rebate system is effective on tank wagon schedules throughout the territory of Standard Oil Co. of Indiana: Over 750 gallons, ½c; over 2,000 gallons, ¾ cent; over 3,000 gallons, 1 cent; over 6,000 gallons, 1¼ cents; over 10,000 gallons, 2 cents. If quantity bought during the year is equal to 12 times the monthly agreed purchases the discount will be paid or credited on the entire quantity less monthly payments. Service station customers will receive discount of 1 cent a gallon on purchases amounting to 200 gallons a month or 2,400 gallons a year; and 2 cents a gallon on 600 gallons a month or 7,200 gallons a year.

SOUTHWESTERN DISTRICT

***Magnolia Petroleum Co.**

	Gasoline			Kero.
	Tank wagon	Service station	Inclds tax of	Tank wagon
Dallas, Tex.	15.0	17.0	1.0	13.0
Fort Worth	14.0	15.0	1.0	13.0
Houston	16.0	18.0	1.0	13.0
San Antonio	17.0	17.0	1.0	13.0
El Paso	18.0	18.0	1.0	14.0
Texarkana	18.0	21.0	1.0	13.5
Muskogee, Ok.	17.0	20.0	3.0	13.0
Oklahoma City	17.0	20.0	3.0	13.0
Tulsa	18.0	21.0	3.0	13.0
Little Rock	20.0	23.0	4.0	15.0
Ft. Smith, Ark.	20.0	23.0	4.0	15.0

*The following is the schedule of discounts on gasoline adopted by the Magnolia Petroleum Co. in Texas sales and the discounts are graded according to gallonage: Over 750 gallons a month, ½ cent; over 2,000 gallons, ¾ cent; over 3,000 gallons, 1 cent; over 4,500 gallons, 1¼ cents; over 6,000 gallons, 1½ cents; over 8,000 gallons, 1¾ cents; over 10,000 gallons, 2 cents. If the quantity bought during the year is 12 times the monthly agreed purchases, the discount will be paid or credited on the entire quantity for the year less any monthly purchases.

The schedule on service station deliveries is: Over 200 gallons a month, 1 cent; over 300 gallons a month, 1¼ cents; over 400 gallons, 1½ cents; over 500 gallons, 1¾ cents; over 600 gallons, 2 cents. The same rule applies for annual purchases as in the tank wagon discounts.

CENTRAL SOUTH DISTRICT

Standard Oil Co. (Louisiana)

	Gasoline			Kero.
	Tank wagon	Service station	Inclds tax of	Tank wagon
*New Orleans	18.5	21.5	3.0	13.5
Alexandria	18.0	21.0	2.0	14.5
Baton Rouge	17.0	20.0	2.0	13.0
LaFayette	18.0	21.0	2.0	14.0
Lake Charles	18.5	21.5	2.0	14.5

*Tax of 3 cents includes city tax of 1 cent.

SOUTHERN DISTRICT

Standard Oil Co. (Kentucky)

	Gasoline			Kero.
	Tank wagon	Service station	Inclds tax of	Tank wagon
Atlanta, Ga.	24.0	27.0	3.5	18.0
Augusta	24.0	27.0	3.5	18.0
Macon	24.0	27.0	3.5	18.0
Savannah	21.0	24.0	3.5	16.0
Birm'gham, Ala	21.0	24.0	3.0	17.5
Mobile	20.0	23.0	3.0	16.0
*Montgomery	22.0	25.0	3.0	18.5
Clarksdale, Miss	22?0	26.0	4.0	15.5
Jackson	22.0	26.0	4.0	14.5
Natchez	21.5	24.5	4.0	16.0
Vicksburg	21.5	24.5	4.0	16.0
Jack'ville, Fla.	22.0	25.0	4.0	16.0
Miami	24.0	27.0	4.0	17.5
Pensacola	22.0	25.0	4.0	16.5
Tampa	22.0	26.0	4.0	16.0
Covington	24.0	27.0	5.0	17.0
Louisville	24.0	27.0	5.0	16.0
Lexington, Ky.	23.0	26.0	5.0	17.0

*In addition to the state tax of 3 cents on gasoline, Montgomery has city tax of 1 cent on gasoline and ½ cent on kerosene.

PENNSYLVANIA-DELAWARE AND PART NEW ENGLAND

Atlantic Refining Co.

	Gasoline			Kero.
	Tank wagon	Service station	Inclds tax of	Tank wagon
*Pittsburgh, Pa.	19.0	24.0	...	16.0
*Philadelphia	19.0	24.0	...	16.0
*Scranton	19.0	24.0	...	16.0
*Allentown	19.0	24.0	...	16.0
Altoona	19.0	24.0	...	16.0
*Erie	19.0	24.0	...	16.0
Dover, Del.	21.0	24.0	2.0	16.0
Wilmington	21.0	24.0	2.0	16.0
Springf'd, Mass.	20.0	23.0	...	17.0
Worcester	20.0	23.0	...	17.0
Boston	20.0	23.0	...	17.0
Providence, R.I.	21.0	23.0	1.0	17.0
Hartford, Conn.	22.0	25.0	2.0	16.0
New Haven	22.0	25.0	2.0	17.0

*Pennsylvania tax of 2 cents is collected by the dealer and paid by him direct to the State.

OHIO

Standard Oil Co. (Ohio)

	Gasoline			Kero.
	Tank wagon	Service station	Inclds tax of	Tank wagon
All Ohio points	21.0	23.0	3.0	14.0

NEW YORK AND PART OF NEW ENGLAND DISTRICT

Standard Oil Co. (New York)

	Gasoline			Kero.
	Tank wagon	Service station	Inclds tax of	Tank wagon
Albany, N. Y.	20.0	....	...	17.0
*New York	20.0	....	...	17.0
Buffalo	20.0	....	...	17.0
Rochester	18.0	....	...	17.0
Syracuse	20.0	....	...	17.0
Boston, Mass.	20.0	....	...	17.0
Providence, R.I.	21.0	....	1.0	17.0
Augusta, Me.	23.0	....	3.0	17.0
Manchester, N. H.	22.0	....	2.0	17.0
Burlington, Vt.	22.0	....	2.0	17.0

*Price in steel barrels.
Note: Standard Oil Co. of New York does not generally quote service station price in its territory. In most cases the service station price is 2 or 3 cents higher than tank wagon price.

ATLANTIC COAST DISTRICT

Standard Oil Co. (New Jersey)

	Gasoline			Kero.
	Tank wagon	Service station	Inclds tax of	Tank wagon
Atlantic City	18.0	....	...	16.0
Newark, N. J.	18.0	20.0	...	16.0
Annapolis, Md.	20.0	....	2.0	16.0
Baltimore	20.0	23.0	2.0	15.0
Cumberland	20.0	23.0	2.0	16.0
Washington	20.0	23.0	2.0	16.0
Danville, Va.	22.5	....	4.5	16.0
Norfolk	22.5	25.5	4.5	16.0
Petersburg	22.5	....	4.5	16.0
Roanoke	22.5	25.5	4.5	16.0
Richmond	22.5	25.5	4.5	16.0
Charleston, W. Va.	21.5	24.5	3.5	16.0
Keyser	21.5	....	3.5	16.0
Parkersburg	21.5	24.5	3.5	16.0
Wheeling	21.5	24.5	3.5	16.0
Charlotte, N. C.	22.0	25.0	4.0	16.0
Hickory	22.0	....	4.0	16.0
Mt. Airy	22.0	....	4.0	16.0
Salisbury	22.0	....	4.0	16.0
Charleston, S.C.	23.0	26.0	5.0	16.0
Columbia	23.0	26.0	5.0	16.0

ROCKY MOUNTAIN DISTRICT

Continental Oil Co.

	Gasoline			Kero.
	Tank wagon	Service station	Inclds tax of	Tank wagon
Denver, Colo.	21.0	21.0	2.0	18.0
Pueblo	20.0	20.0	2.0	16.0
Casper, Wyo.	21.5	23.5	2.5	16.5
Cheyenne	22.5	24.5	2.5	18.0
Butte, Mont.	24.0	24.0	2.0	20.0
Helena	26.0	28.0	2.0	20.5
Salt Lake, Utah	26.0	28.0	3.5	19.0
Boise, Idaho	27.0	29.0	3.0	21.0
Albuquerque, N. Mex.	25.5	28.5	3.0	21.0

CALIFORNIA

***Standard Oil Co.-Union Oil Co.**

Gravity—	Long Beach Huntington Beach Richfield Brea-Olinda Rosecrans-Dom'guez Torrance-Inglewood	Whittier La Habra Montebello	Kern River Newhall-McKittrick Midway-Sunset Elk Hills Lost Hills Belridge	Coyote	Santa Fe Springs	Coalinga	Wheeler Ridge	Santa Maria Ventura Salt Lake
14°	.85	.86	.75	.85	....	.75	.75	.85
15°	.87	.85	.76	.86	....	.76	.75	.86
16°	.90	.85	.76	.85	....	.75	.75	.85
17°	.94	.86	.76	.85	....	.75	.75	.86
18°	.98	.86	.76	.86	....	.75	.75	.85
19°	1.04	.87	.75	.87	....	.75	.75	.85
20°	1.10	.89	.82	.90	.89	.79	.78	.90
21°	1.16	.91	.90	.93	.91	.86	.81	.97
22°	1.22	.94	1.00	1.06	.94	.93	.85	1.04
23°	1.28	.97	1.11	1.14	.97	1.00	.89	1.11
24°	1.34	1.01	1.22	1.22	1.02	1.07	.93	1.18
25°	1.40	1.05	1.33	1.30	1.08	1.14	.97	1.25
26°	1.46	1.09	1.44	1.38	1.16	1.21	1.01	1.32
27°	1.52	1.13	1.55	1.46	1.24	1.28	1.05	1.39
28°	1.58	1.17	1.66	1.54	1.32	1.35	....	1.46
29°	1.64	1.21	1.77	1.62	1.40	1.42	....	1.53
30°	1.70	1.25	1.88	1.70	1.48	1.49	....	1.60
31°	1.76	....	1.99	....	1.60	1.56	....	1.67
32°	1.84	....	2.10	....	1.72	1.63	....	1.73
33°	1.93	....	2.31	....	1.84	1.70	....	1.79
34°	2.00	....	2 32	....	1.96	1.77	....	1.85
35°	2.08	....	....	....	2.08	1.84	....	1.92
36°	2.16	....	....	....	2.16	....	....	....
37°	2.24	....	....	....	2.24	....	....	....
38°	2.34	....	....	....	2.34	....	....	....
39°	2.44	....	....	....	2.44	....	....	....
40°	2.54	....	....	....	....	....	....	....
41°	2.64	....	....	....	....	....	....	....
42°	2.74	....	....	....	....	....	....	....

*Column 2—Long Beach and Huntington Beach crudes, 14 to 32 degrees, inclusive; Richfield and Brea-Olinda, 14 to 30 degrees; Torrance and Inglewood, 14 to 28; Domingues, 24 to 42 degrees. Rosecrans crude ranges from 14 to 42 degrees, but only Union Oil Co. posts below 24 degrees.
Column 3—Whittier and La Habra crudes, 14 to 22 degrees; Montebello, 14 to 30 degrees.
Column 4—Kern River, Newhall and McKittrick, 14 to 19 degrees; Midway-Sunset and Elk Hills, 14 to 33 degrees; Lost Hills and Belridge, 14 to 24 degrees.
Column 6—Santa Fe Springs. Only Union Oil Co. posts below 24 degrees.
Column 9—Salt Lake, 14 to 19 degrees, inclusive; Santa Maria, 14 to 30 degrees; Ventura, 14 to 35 degrees. Posted only by Union Oil Co.

NEBRASKA

Standard Oil Co. (Nebraska)

	Gasoline			Kero.
	Tank wagon	Service station	Incldg tax of	Tank wagon
Omaha	20.25	22.25	2.0	15.0
McCook	21.75	23.75	2.0	16.5
Norfolk	20.75	22.75	2.0	15.5
North Platte	21.75	23.75	2.0	16.25
Scottsbluff	21.25	23.25	2.0	15.75

PACIFIC COAST DISTRICT

Standard Oil Co. (California)

	Gasoline			Kero.
	Tank wagon	Service station	Incldg tax of	Tank wagon
San Francisco	18.0	22.0	2.0	15.5
Los Angeles	16.5	20.5	2.0	16.5
Fresno	18.5	22.5	2.0	17.5
Reno, Nev.	23.5	27.5	4.0	19.0
Portland, Ore.	19.0	23.0	3.0	16.5
Seattle, Wash.	18.0	22.0	2.0	16.5
Spokane	22.0	26.0	2.0	20.5
Tacoma	18.0	22.0	2.0	16.5
Phoenix, Ariz.	25.0	28.0	3.0	21.5

TANK WAGON PRICE CHANGES

May 3.—Continental Oil Co. advanced gasoline 2 cents in Montana with few exceptions.

May 6.—Standard Oil Co. of Indiana advanced kerosene a half-cent throughout its territory and reduced tank wagon and service station prices of gasoline 1 cent at Sioux Falls, S. Dak.

May 7.—Standard Oil Co. of Nebraska advanced kerosene a half-cent.

May 8.—Continental Oil Co. advanced kerosene in Colorado, Wyoming, New Mexico and Montana a half-cent generally and 1 cent at Butte and Helena, Mont.

May 10.—Standard Oil Co. of New Jersey advanced kerosene a half-cent.

CRUDE PRICE CHANGES

May 5.—Standard Oil Co. of Louisiana posted a new schedule for El Dorado crude to include oil from the Lisbon Pool. Below 33 gravity crude was unchanged at $1.75 but three grades were added as follows: 33 to 34.9 gravity, $1.85; 35 to 36.9 gravity, $1.95, and 37 gravity and above, $2.05.

May 6.—Ohio Oil Co., reduced Sunburst, Mont., crude 10 cents.

In this issue of The Oil and Gas Journal Mexican crudes delivered at New York are reduced 10 cents.

BENZOL NOT TAXABLE

CHICAGO, May 8.—According to a decision by Judge C. M. Rogers of Columbus, Ohio, benzol is not liable to taxation in Ohio as gasoline since it is not a product of petroleum. In several states with a tax on gasoline, the tax is levied on all motor fuels and benzol is specifically mentioned.

CRUDE OIL PRICES

(Continued from Page 137)

Pine Lines (Pennsylvania)	3.55
Penna Grade Oil in Eureka Pipe Line Lines (Ohio)	3.30
Penna Grade Oil in Buckeye Pipe Line Lines (Ohio)	2.35
Cabell Grade Oil in Eureka Pipe Line Lines (West Virginia)	2.20
Corning Grade Oil in Buckeye Pipe Line Lines (Ohio)	2.35
Somerset Medium Oil in Cumberland Pipe Line Lines (Kentucky)	2.30
Somerset Light Oil in Cumberland Pipe Line Lines (Kentucky)	2.45
Ragland Grade Oil in Cumberland Pipe Line Lines (Kentucky)	1.15
Gaines (Pennsylvania)	3.10
Keister (Pennsylvania)	2.45

MIDDLE WESTERN STATES
Ohio Oil Co.

Lima	$2.23
Wooster	2.35
Illinois	2.12
Indiana	2.00
Princeton	2.12
Plymouth	1.65
Waterloo	1.10
*Western Kentucky, 32.9° and below	1.85
33° to 35.9°	1.95
36° to 38.9°	2.05
39° and above	2.15
**Cumberland, Barren and Monroe Counties	2.45
†Oil Springs (Canada)	2.70
†Petrolia (Canada)	2.63

*Posted by Indian Refining Co.
**Posted by Paragon Development Co.
†Posted by Imperial Oil Co., Ltd.

MEXICAN

*Tuxpam light (f.o.b. Mex. ports)	$1.35
‡Panuco heavy (f.o.b. Mex. ports)	1.15
Tuxpam (New York)	2.15
Panuco (New York)	1.80

*Plus 32.328c tax. ‡17.631c tax.

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Petroleum Issues Unaffected by Strike

Anglo-American Oil, Largest Marketer in Britain, Was Inactive and Showed Little Change in Price During Week

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, 30 Church St., New York

NEW YORK, May 10.—Oil securities were active and irregular during the past week. The British strike seemed to have no direct effect on oils. Anglo American Oil, the largest marketer in the British Isles, was inactive and showed little change in price.

The Standard Oil Co. of New York reports for the year ended December 31, 1925, net income of $41,580,386, after taxes and reserves for depreciation, depletion and interest, equal to $3.63 a share on the 11,459,264 shares of capital stock (par $25) outstanding. This compares with $22,020,042, or $2.42 a share, on 9,101,412 shares outstanding in 1924.

The consolidated income for 1925 compares with 1924 as follows:

	1925	1924
Earnings after exp. and taxes	$ 72,175,827	$ 38,671,196
Res. for deprec. and ins.	28,480,564	13,340,600
Int. on debentures	2,114,877	3,310,554
Net income	$ 41,580,386	$ 22,020,042
Cash dividends	14,345,486	12,690,526
Surplus	$ 27,234,900	$ 9,329,516
Prev. surplus	116,321,195	106,027,134
Total surplus	$143,556,095	$115,356,650
Magnolia Pet.	14,173,728	.....
Mag. Pet. subsid.	2,908,659	.....
Total surplus	$160,638,482	$115,356,650
Cap. stock distrib.	1,127,623	.....
Adjustments, net	547,057	*964,545
P. & L. surplus	$158,963,802	$116,321,195

*Credit.

The consolidated balance sheet of the Standard Oil Co. of New York as of December 31, 1925, compares as follows:

	1925	1924
Assets		
Real estate, refineries, etc	$317,432,886	$139,065,498
Invest. in other cos.	2,772,400	132,992,528
Deferred charges	2,340,552	3,300,911
Cash	23,918,787	6,031,753
Accts. & notes rec.	37,505,636	24,482,414
Inventories	148,990,600	100,338,500
Total	$532,960,861	$406,211,604
Liabilities		
Capital stock	$286,481,600	$227,535,300
4½% debentures	15,000,000	.....
6½% debentures	20,000,000	20,000,000
Res. for ins. & vessel replacem't.	10,695,925	11,329,025
Deferred credits	2,170,993	2,176,954
Accts. payable	32,284,049	23,858,078
Taxes payable	7,364,492	4,991,052
Surplus	158,963,802	116,321,195
Total	$532,960,861	$406,211,604

The income account for 1925 represents a consolidation of the Standard Oil Co. of New York and Magnolia Petroleum Co., although these properties were not taken over by Standard until December 13, 1925.

Shell Union Oil

The report of the Shell Union Oil Corp. for the year ended December 31, 1925, shows net income of $20,415,960 after depreciation, depletion and special reserve of $2,800,000, equivalent after preferred dividends to $1.93 a share earned on 10,000,000 shares of no par value common stocks. This compares with $18,562,738, after deducting special reserve of $6,000,000 for contingencies, or $1.74 a share, in 1924.

The consolidated income account for 1925 compares as follows:

	1925	1924
*Gross income	$50,293,550	$50,984,588
Depr., depl., etc	26,735,942	26,060,516
Special reserve	2,800,000	6,000,000
Balance	$20,757,608	$18,924,072
Minority int.	341,648	361,334
Net income	$20,415,960	$18,562,738
Pref. dividends	1,031,536	1,147,890
Com. dividends	14,000,000	10,000,000
Surplus	$ 5,384,424	$ 7,414,848

*Includes half interest in income of Comar Oil Co.

The consolidated balance sheet of the Shell Union Oil Corp. and subsidiaries as of December 31, 1925, compares as follows:

	1925	1924
Assets		
Property account	$261,260,114	$243,190,665
Investments	3,263,635	3,126,370
Advances	2,207,353	2,819,192
Inventories	22,585,774	14,455,736
Materials & sup.	4,883,595	4,751,283
Accts. & notes, rec.	8,378,121	6,023,344
Demand loans	26,060,705	28,500,000
Cash	2,724,163	2,153,993
Deferred charges	1,064,441	988,352
Total	$332,427,906	$306,008,935
Liabilities		
Pref. stock	$ 17,365,400	$ 17,380,409
*Com. stock	201,412,821	201,412,821
Min. int. in subsid. cos.	1,768,575	1,433,909
Prop. pur. oblig.	1,501,333	1,981,805
Accts., fed. tax. & accurals pay.	10,181,180	7,528,958
Accrued divs. on pfd.	137,629	143,629
Rec. for depr. and depl.	65,256,189	49,007,058
Res. for conting's.	10,000,000	7,200,000
Surplus	24,804,779	19,420,355
Total	$332,427,906	$306,008,935

*Represented by 10,000,000 shares of no par value.

Quarterly Reports

The Amerada Corp. reports for the quarter ended March 31, 1926, net income of $811,628 after depreciation, depletion, Federal taxes, etc., equivalent to $1.14 a share earned on 713,300 shares of no par common stock.

The Barnsdall Corp. and subsidiaries for the quarter ended March 31, 1926, report net income of $1,364,858 after interest, Federal taxes, depreciation and depletion, equivalent to $1.18 a share (par $25) earned on the combined 1,148,536 shares of Class A and Class B stocks. This compares with $550,150, or 77 cents a share on 708,536 combined shares in the first quarter of 1925.

The Independent Oil & Gas Co. and subsidiaries report for the quarter ended March 31, 1926, net income of $148,072 after ordinary taxes, interest, depreciation and depletion, but before Federal taxes, equal to 83 cents a share earned on 500,000 shares of no par stock. This compares with $362,031 or 72 cents a share in the preceding quarter and net of $1,020,960 before depreciation and depletion in the first quarter of 1925.

The Panhandle Producing & Refining Co. reports for the quarter ended March 31, 1926, deficit of $32,870 after taxes, depreciation and depletion. This compares with net income of $182,923 before depreciation and depletion in the first quarter of 1925.

Pierce Petroleum Corp. and subsidiaries report for the quarter ended March 31, 1926, net loss of $154,588 after interest and depreciation. This compares with net profit of $109,038, or 4 cents a share, on 2,500,000 no par shares outstanding in the first quarter of 1925.

Effective May 1, G. A. Steel has been elected president, director and general manager of the Pierce Oil Co., S. A., a subsidiary of the Pierce Petroleum Corp., succeeding William H. Mealey, resigned. H. E. Hickman has been elected vice president, effective May 1, succeeding C. A. Pierce, resigned.

NEW YORK STOCK EXCHANGE—LIST OF ACTIVE STOCKS

Stocks—	Par	Clos. Quot. May 10	Clos. Quot. May 3	1926 High	1926 Low	1925 High	1925 Low	1924 High	1924 Low
American Republics	..	*60	*63	74	63	79¾	48	48	25
Associated Oil	25	51½	*52½	59½	44¾	47¼	32	35⅝	27⅝
Atlantic Ref., com.	100	115½	113½	116½	97	117½	95⅛	140½	78⅛
Barnsdall "A"	25	25	25¼	32½	26	33⅛	18¾	29½	14
California Pet., com.	25	32½	32⅝	38⅛	20⅝	34⅝	23⅞	29	19⅞
General Petroleum	25	59⅝	59¼	65⅝	51¼	59	42	45	38⅝
Houston Oil	100	*58	58½	72	50¼	85	59	82½	61
Independent Oil & Gas	..	23⅝	24	34	20¼	41¾	13½	16⅜	5¾
Indian Refining	10	9⅝	10½	13⅜	9⅛	14¼	5½	7	3⅝
Louisiana Oil	10	14	14	19⅝	12	23¾	13¾	..	..
Maracaibo	..	22	22¼	28⅞	20⅝	35⅛	20¾	37¼	25⅝
Marland	..	54⅜	54	60¼	49¼	60⅛	32⅝	42	29
Mexican Seaboard	..	7⅝	8⅝	12⅛	6	22½	9	25⅜	14½
Mid-Continent Pet.	..	30⅝	30½	41	28⅝	38	25¾	40½	22⅝
National Supply	50	*59	61¼	65⅞	56½	71	54⅝	72⅛	54
Oil Well Supply	25	30¼	*30⅛	36	30⅛	38	33⅝	..	..
Pacific Oil	..	54⅝	55⅝	83⅛	53⅝	78⅛	51¼	58⅛	45
Pan. Amer. P. & T., com.	50	65	64	76⅛	56⅛	83⅞	59⅛	65	44⅛
Pan. Amer., Western B.	..	38⅛	37⅝	46	34	49⅝	37¼	..	..
Phillips Pet.	..	44¼	44⅛	45⅛	42⅛	47⅛	36¼	42¼	28⅛
Producers & Refiners	50	12⅝	12⅜	17⅛	11	32⅝	12½	43½	29⅜
Pure Oil, com.	..	26⅞	26⅛	31	26	33⅜	25⅛	30¼	20
Royal Dutch, N. Y., sh.	13.40	50⅝	51⅛	57⅜	50	57⅝	48¾	59½	40⅜
Shell Transport	10	40⅝	*41⅜	44⅞	42	49	39⅜	42	32
Shell Union, com.	..	24⅝	24⅜	28⅛	24	28⅜	21⅝	22½	15⅜
Simms Pet.	10	18⅛	20¼	28⅝	20⅜	28⅛	17⅝	24	10⅜
Sinclair Consolidated, com.	..	20⅞	21¼	24⅞	15⅝	24⅞	17	17½	16
Skelly Oil	25	33⅝	34⅝	34⅝	27	32½	21⅜	29	17⅛
Standard of California	25	54⅝	55	62¼	54	67⅛	51½	68½	55½
Standard of New Jersey, com.	25	44⅜	44	46⅜	40¼	47½	38⅜	41⅜	33
Sun Oil Co.	..	32½	33	41⅝	31⅛	43⅜	38¼	..	..
The Texas Company	25	50⅝	50¼	54⅞	49	55	42⅜	45⅝	37⅜
Texas Pacific Coal & Oil	10	13¼	14	19½	12½	23⅜	11	15¼	8¼
Tide Water Oil (new)	..	32	*31	39¼	30¼	‡152	122	151	116¼
Transcontinental	..	3½	3⅝	4⅜	3	5⅞	3½	6¼	3⅜
Union Oil of California	25	42⅜	42⅜	49⅜	37½	43⅜	33⅛	39	35½
Union Tank, com.	100	*88½	90	94	84¼	‡134	118	132⅞	94
White Eagle Oil & Refining	..	26⅝	26⅛	29⅜	26¼	31⅝	25⅝	29⅜	23⅛
Standard Oils									
Anglo-American Oil	£1	16⅝	17¼	19⅝	16½	26⅝	17½	18⅝	14⅝
Borne Scrymser	100	*230	*230	248	226	240	205	164	150
Buckeye Pipe Line	50	53	53½	59½	54½	72	53½	85½	51
Chesebrough Mfg. Co.	25	*66	67	72⅜	63	74	48¼	52⅛	29¼
Continental	10	20⅜	21¼	25⅞	20¼	31½	21⅜	..	..
Crescent Pipe Line	25	*14	*21⅝	16	14½	17½	10	20	11⅜
Cumberland Pipe Line	100	*111	114	137	110	156	128	143	108
Eureka Pipe Line	100	49½	49	63⅜	50	96	61¼	105	74
Galena Signal, com.	100	20	*20⅜	32½	24	68½	23½	69¾	63½
Humble Oil & Refining Co.	25	63⅜	64½	99⅝	56	99	42½	43⅜	36
Illinois Pipe Line	100	*143½	143⅛	144	134½	154½	124	161	133
Imperial Oil (Ltd.)	..	34⅝	34¼	38⅜	32½	39¼	27¼	119	99
Indiana Pipe Line	50	64	*63½	67	58	84	57½	100	66
International Pet. Co.	10	31⅞	32⅛	35¼	28⅜	35⅝	22½	34⅝	16⅞
National Transit Co.	12.50	*15½	16	20⅝	18	25½	16½	25⅞	20⅝
New York Transit	100	*45	*45	50	39	79	50	97	54½
Northern Pipe Line	100	*75	*72	80⅛	70⅝	88	67½	107½	73
Ohio Oil Co.	25	59	59	67⅝	59⅜	75¼	60	79¼	52
Penn.-Mex. Fuel	25	*17	*19	23	16¼	44	19	35⅝	27
Prairie Oil & Gas	25	54¼	54⅞	60¼	52¼	65½	45⅞	269	193
Prairie Pipe Line	100	123⅝	123⅝	127	122½	129¾	105	111	100
Solar Refining Co.	100	198	*198	212	191	259	200	240	170
South Penn Oil	25	37⅝	38⅛	50	40	‡197	139	176	117
Southwest Pa. Pipe Line	100	*54⅛	52	54¼	47½	84	50	89	66
Southern Pipe Line	100	67	*65½	74½	61½	103	62	100	80½
Standard of Indiana	10	64	63⅞	70½	61⅝	70⅜	59½	69⅝	54⅛
Standard of Kansas	25	37	37¼	38½	35	46	30¼	50⅜	32½
Standard of Kentucky	25	117	118	134⅝	108	137	114⅝	121⅞	101
Standard of Nebraska	100	*270	264	263	206	270	231	262	198
Standard of New York	25	31	30⅝	47¼	31⅝	48⅝	40	48	37⅝
Standard of Ohio, com.	100	310	*315	362	310	369	338	337½	277
Swan & Finch, com.	25	*17	*17	21	18	27	12	28	20
Vacuum Oil	25	97⅝	98	109⅝	94¼	109½	80⅛	83⅛	50½
Miscellaneous									
Gulf Oil Corp. of Pa.	25	84⅛	*85	93⅜	82½	98¼	63½	67⅝	56

*Bid, no sales. ‡Old stocks.

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange was as follows:

May 10	57.08	Apr. 5	56.78	Mar. 1	55.84	
May 3	57.23	Mar. 29	56.18	Feb. 20	58.23	
Apr. 26	57.39	Mar. 22	57.96	Feb. 15	57.51	
Apr. 19	56.63	Mar. 15	56.34	Feb. 8	58.96	
Apr. 12	56.07	Mar. 8	55.02	Feb. 1	58.51	

PENNSYLVANIA MARKET ACTIVE DURING WEEK

OIL CITY, Pa., May 8.—With the exception of cylinder stocks and wax the Pennsylvania refined market has been very active during the past week, with a demand for some of the products which has been exceptionally large and with neutrals occupying a much stronger position than for weeks past.

Kerosene continues to be the big market feature. The demand for this product during the week has been terrific and prices continued upward. In the opinion of many of the market observers the peak in kerosene has now been reached as the spring plowing has been nearly completed and actual consumption will fall off.

The gasoline situation is improving and the demand was better during the week. actual consumption has been much increased and with good weather finally prevailing over most of the East the use of motor vehicles has been very great.

Neutrals were very strong during the week with the best demand of the year. With a backward spring and the drop in buying which followed the crude production of some time ago the stocks held at other places than refineries were allowed to get low and all of them with an increase in demand have been forced into the market at one time.

Demand for fuel oil is big. There is none in storage and the cracking plants are now being pushed with a large increase in actual consumption of this product.

Wax and cylinder stocks continue slow. In practically all of the Pennsylvania petroleum products there is a scarcity at present and none can be bought for May shipment.

VISITING OIL FIELDS

Lin M. Butler, general manager of the industrial division of the American Radiator Co., of Chicago, and Gray I. Morriss, of the condensing section of the company, are making a trip through the Mid-Continent territory visiting the different oil fields. They included the Texas Panhandle in their itinerary to obtain a view of this rapidly growing oil and gas producing area.

Gasoline Association Reelects Officers

President Peck and Executive Staff Elected for Another Year. Characteristics of Natural Gasoline Is Discussed On Last Day

By C. O. Willson

E. L. Peck, manager of the Empire Gasoline Co., Bartlesville, Okla., was unanimously reelected president of the Association of Natural Gasoline Manufacturers at its annual convention held May 5 and 6 at Tulsa. Acting on the recommendation of the nominating committee, the membership not only reelected Mr. Peck but also the entire executive staff.

The vice presidents reelected were F. L. Chase, vice president of the Lone Star Gas Co., Dallas, Tex.; A. M. Ballard, sales manager of the Sun Oil Co., Tulsa, and F. E. Rice, superintendent of the natural gasoline department, Bartlesville, Okla. A. V. Bourque, who has been secretary and treasurer of the association since its organization five years ago, will continue in that capacity during the coming year.

Some changes were made in the board of directors due to expiration of terms and also because recent consolidations among natural gasoline companies had brought about several vacancies. The company membership on the new board is as follows:

The following companies were selected for the two-year terms on the board of directors: Amerada Petroleum Corp., Carbide & Chemicals Corp., Pacific Gasoline Co., Phillips Petroleum Co., Skelly Oil Co., Texas Pacific Coal & Oil Co., Tidal Refining Co., Roxana Petroleum Corp., General Petroleum Corp., Henderson Gasoline Co., Burrell Oil & Gas Co., Eagle Picher Lead Co., and California Gasoline Co. The terms of the following companies expire next year: Chestnut & Smith Corp., Transcontinental Oil Co., Akin Gasoline Co., Oil State Gasoline Co., Hurley Gasoline Co., Prairie Oil & Gas Co., Marland Oil Co., Empire Gasoline Co. and Sun Co.

The reelection of the officers who have headed the association's activities resulted from the attitude of general approval on the part of the membership for their efficient work during the past year. The officers have been responsible for the completion of several features of the association's program announced a year ago.

They have also been largely responsible for inaugurating the association's educational program around which activities will be centered during the coming year. This program which was explained in detail in the May 6 issue of The Oil and Gas Journal is considered by many members to be the most important campaign ever undertaken by the association.

The report of Mr. Bourque showed the association to be in excellent financial condition. Despite the fact that consolidations among the gasoline manufacturers brought about several withdrawals, the association's total membership increased during the year. One especially gratifying feature to the officers was the addition of several members from California. The west coast area ranks next to the Mid-Continent in natural gasoline production and it is believed that cooperation between the two sections, although their problems vary in several respects, will be mutually beneficial.

Discuss Motor Fuels

The business session Thursday afternoon proved to be one of the most interesting of the two-day convention. It was devoted to the discussion of natural gasoline as a motor fuel, probably the most vital matter now confronting the manufacturers and sellers of the product. During the afternoon much of the scientific data which will be used in the association's educational program were made known.

The prepared papers were presented by Dr. E. R. Lederer, vice president of the Texas Pacific Coal & Oil Co., of Fort Worth, Tex.; Drs. E. H. Leslie and G. G. Brown, professors of chemical engineering, University of Michigan, and A. Ludlow Clayden, research engineer of the Sun Oil Co., Philadelphia. These paper with the exception of Doctors Leslie and Brown were published in the May 6 issue of The Oil and Gas Journal. Doctor Brown talked informally, using lantern slides. The association has announced that his discussion will be summarized in paper form. This paper will be published as soon as available.

COVERED LAST WEEK

All but two of the addresses of the Fifth Annual Convention of the Association of Natural Gasoline Manufacturers, Tulsa, May 5 and 6, including the proceedings of the first day were published in the May 6 issue of The Oil and Gas Journal.

The discussion of Doctors Leslie and Brown is being prepared in paper form and will be published when released by the association. The following addresses will be found in this issue:

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Doctor Brown explained experiments conducted at the University of Michigan tending to show in general that natural gasoline when used as a blending material with straight run gasoline added to the antidetonating characteristics of the finished motor fuel, gave more power and quicker pickup and ease in starting. All these characteristics are desirable from the standpoint of the average automobile and truck owner.

As has been the case in practically all research work conducted during the past few months covering the relative values of motor fuels, the experiments carried on under the direction of Doctor Brown are not complete at this time although enough work had been done to arrive at general conclusions just explained.

Doctor Brown emphasized the need of a standard test for motor fuels so that there would be uniformity in the results obtained which would permit of definite comparisons between the many types and grades. In most of the tests explained by Doctor Brown, a Franklin engine was used. His report showed that the results differed considerable in several respects when a Buick engine was used. The richness of the mixture and the temperature of the manifold were other operating factors which were also reflected in the results.

Benzol and Natural Gasoline

The most interesting data were based on a comparison of benzol and natural gasoline as a blending material. Benzol is widely used as blending material by refiners and jobbers as it is generally conceded to be the best antidetonating fuel available.

One test made by Doctor Brown showed that a 30 per cent natural gasoline blend was approximately two-thirds as effective as the benzol blend. In this connection he said that while the benzol was the more effective antidetonating fuel, the natural gasoline blend up to the knocking stage, gave smoother operation. All of Doctor Brown's experiments were based on blends with straight run gasoline, no cracked gasoline being used.

Sun Oil Co. Tests

Tests made by the Sun Oil Co. comparing natural gasoline and benzol differed somewhat from those made at the University of Michigan. The former tests as explained in Mr. Clayden's paper showed that the natural gasoline was approximately one-third as effective as benzol when blended with cracked gasoline and one-sixth as effective when blended with straight run gasoline.

Mr. Clayden was not present to explain how his tests were made. Doctor Brown expressed the opinion that the difference in results was probably due entirely to the difference in the richness of the mixtures. He said that he had found that this had direct bearing on the results obtained in their own tests. He also expressed the opinion that rich mixtures and the higher end point gasolines now sold, explained the fact automobile owners had more carbon trouble than formerly.

G. G. Oberfell, chief research chemist of the Phillips Petroleum Co., Bartlesville, in leading the discussion of the papers presented Thursday afternoon, said that the membership need not fear any decrease in the demand for their product due to the changes being made in the manufacturing processes at refineries. He presented several charts showing the effect price had on yields of refined products from crude in the past.

He said that the higher end points in gasoline specifications brought about by refiners in their efforts to secure the maximum recovery of motor fuel from crude, was largely responsible for crank case dilution in automobiles. He quoted from investigations showing that the crackcase dilution was due to the presence of fractions in gasoline having boiling points above 300 degrees Fahrenheit.

Answering questions from the floor of the convention Doctor Brown later explained the essential difference in benzol and natural gasoline as being due to the difference in rise of compression and ignition temperatures. This difference, he said, was vital in determining motor fuel values. Benzol, he explained, in an engine had a righ rate of rise of compression with a very high ignition temperature while natural gasoline had a slow rate of rise of compression and a low ignition temperature.

Traffic Meeting

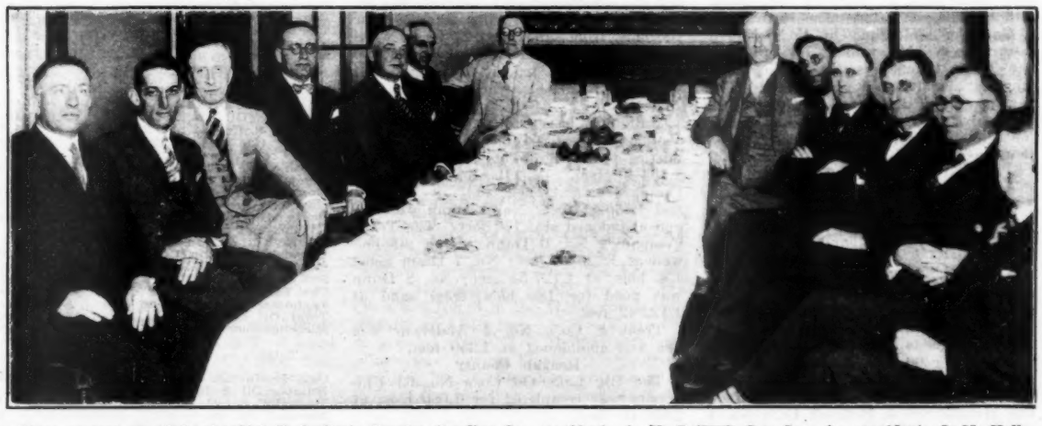
Approximately 50 traffic men attended the meetings called for the discussion of problems peculiar to the transportation of natural gasoline. This was the first traffic meeting to be held in connection with the annual convention and a majority of the manufacturers had representatives present. A. L. Winn, traffic manager of the Skelly Oil Co., Tulsa, presided at the meetings.

As was explained in last week's report the traffic men went on record as favoring standard method for gauging tank cars. The present lack of uniformity is costing the natural gasoline industry large sums annually, speakers stated. The traffic men also favor metallic cards in preference to cardboards for tank cars. Several other docketed matters were discussed.

Dinner Dance

The innovation of a dinner dance instead of the usual banquet on the last evening of the convention proved to be a success. Approximately 250 members and guests were present. C. C. Herndon, vice president of the Skelly Oil Co., delivered the principal address of the evening. Judge A. Veasey, chief counsel of the Carter Oil Co., Tulsa, presided as toastmaster. Short talks were made by E. L. Peck, president of the associa-

OFFICERS AND DIRECTORS OF ASSOCIATION OF NATURAL GASOLINE MANUFACTURERS IN SESSION AT THE FIFTH ANNUAL CONVENTION, TULSA, OKLA., MAY 5-6



Those present are (left of table) E. L. Peck, Empire Gasoline Co., president; A. M. Ballard, Sun Co., vice president; J. M. Hall, Oil State Gasoline Co.; Dr. E. R. Lederer, Texas Pacific Coal & Oil Co.; R. I. Short, Prairie Oil & Gas Co.; W. N. Corbett, Eagle Picher Lead & Zinc Co. and A. V. Bourque, secretary.

(Right of table) O. H. Schoenwald, Wentz Oil Corp.; B. A. Whitney, Transcontinental Oil Co.; S. C. Carney, Roxana Petroleum Corp.; H. A. Trower, Phillips Petroleum Co.; A. J. Schlosser, Barnsdall Refineries, Inc., and F. L. Chase, Lone Star Gas Co., vice president.

tion; D. E. Buchanan and W. M. Welch, past presidents; George L. Ratcliffe of the General Petroleum Co.; W. R. Boyd, assistant secretary and counsel of the American Petroleum Institute, and Dr. G. G. Brown.

NORTH CENTRAL TEXAS

(Continued from Page 41)

at 1,884-95 feet, total depth being 1,899 feet.

Baylor County

Pandem Oil Corp.'s No. 1 Sykora was dry and abandoned at 1,470 feet.

Archer County

G. S. Anderson's No. 5 Perkins and others was temporarily abandoned at 1,100 feet. L. T. Burns' No. 3 A. P. Jackson was good for 40 bbls. at 1,555-72 feet. The Consolidated Oil Co. and W. C. Young's No. 1 W. H. Taylor was dry and abandoned at 1,811 feet. Hart & Hopkins had a 12-bbl. producer in their No. 1 G. W. Moss at 911-15 feet and 928-35 feet. M. L. Lewis and others' No. 1 A. D. Thompson "B" made 40 bbls. from sand at 1,385-92 feet. T. G. Lomax, Jr.,'s No. 2 L. F. Wilson "H" was dry and abandoned at 1,600 feet. The Magnolia Petroleum Co.'s No. 4 May Rutty "B" was good for 50 bbls. at 896-903 feet. The McCarty Oil Co.'s No. 18 L. F. Wilson was a 30-bbl. well at 1,364-67 and 1,382-84 feet; No. 24 L. F. Wilson "B" made 12 bbls. at 893-906 feet; No. 7 L. F. Wilson "C" was a location abandoned.

Muse & Robertson and others' No. 1 J. M. Hawley was dry and abandoned at 1,836 feet. T. A. Norwood and others temporarily abandoned their No. 2 May Rutty at 1,430 feet. Ramming & Saunders' No. 1 L. F. Wilson, Lot 1, was dry and abandoned at 1,650 feet. The Rowe Drilling Co.'s No. 1 Hutcheson was another duster at 1,470 feet. The Simms Oil Co. and Consolidated Oil Co. plugged their No. 1 S. McCowan estate, at 1,510 feet. The Texas Company's No. 1 H. K. Dycus was dry and abandoned at 1,552 feet. The Texhoma Oil & Refining Co.'s No. 9 Hamilton made 142 bbls. from sand at 1,794-1,801½ feet. V. O. E. Wright and others' No. 4 W. N. Miller was good for 7 bbls. from sand at 730½-38 feet. Roy I. Carter's No. 5 Cowan estate was dry and abandoned at 1,063 feet. J. S. Cosden and the Consolidated Oil Co.'s No. 6 Oldham "A" was dry and abandoned at 1,402 feet; No. 4 Oldham "B" was also dry and plugged at 1,382 feet; No. 1 Oldham "C" made 5 bbls. from sand at 1,371-94 feet; No. 1 Richardson was a failure and abandoned at 1,420 feet.

H. Donohue's No. 1 Andrews was a 15-bbl. well at 870-81 feet. Gwynn and others' No. 1 Echols was dry and abandoned at 1,332 feet. The Humble Oil & Refining Co.'s No. 5 Wolf was dry and abandoned at 1,360 feet. The Ilseng Production Co.'s No. 4 Prideaux, Block 15, made 10 bbls. at 658-72 feet. Maer & Staniforth's No. 2 McCarty was abandoned at 1,425 feet. The Magnolia Petroleum Co.'s No. 8 Rogers made 20 bbls. from sand at 1,381-84 feet along with 80 bbls. of water. The Prairie Oil & Gas Co. and Sun Oil Co.'s No. 3 Kovar was a 3-bbl. well at 1,382-96 feet. The Texas Company's No. 1 Key was dry and abandoned at 1,821 feet. The Texhoma Oil & Refining Co.'s No. 3 Abercrombie & Taylor was dry and abandoned at 1,375 feet and the location was abandoned for No. 2 Jeske. The Trinity Townsite Co.'s No. 3 fee made 50 bbls. from sand at 1,438-46 feet.

Clay County

The Lone Star Gas Co.'s No. 19 Holloway was dry and abandoned at 1,846 feet.

Jack County

The Washington Oil Co.'s No. 1 Gay was dry and abandoned at 1,000 feet.

Montague County

Benton-Woods and others' No. 6 Hinds was good for 60 bbls. from sand at 886-95 feet. The F. H. E. Oil Co.'s No. 3 Hinds made 125 bbls. at 900-32 feet. The Humble Oil & Refining Co.'s No. 1 Hinds was a 70-bbl. well at 887-915 feet. The Texhoma Oil & Refining Co.'s No. 7 Rowland and others "A" made 58 bbls from sand at 1,069-73 feet, 1,087-88, 1089-95 and 1,116-27 feet with total depth at 1,129 feet.

Young County

The Atlantic Oil Producing Co.'s No. 1 Rachuig "B" made 100 bbls. on the swab from sand at 1,157-66 feet, total depth being 1,167 feet. The Booth Oil Co.'s No. 2 Graham made 24 bbls. at 1,102-05½ feet. Roy I. Carter's No. 8 Benson was good for 110 bbls. at 920-35 feet. Cook & Reeder's No. 1 Keen was abandoned at 1,150 feet; the Humble Oil & Refining Co.'s No. 11 Mercer at 1,125 feet; McElreath & Suggett's No. 1 Cox at 560½ feet; and Murchison & Fain and Marland Oil Co.'s No. 2 Campbell "C" at 1,065 feet.

Shackelford County

The Phillips Petroleum Co.'s No. 1 Macon was a location abandoned.

Roeser & Pendleton's No. 4 Cook "A" Section 84 was completed for 125 bbls. at 1,276-91 feet; No. 3 Cook "A" Section 85, was abandoned as dry at 1,550 feet. The Simms Oil Co.'s No. 1 Myrick was dry and abandoned at 1,252 feet.

Stephens County

Barnhart and others' No. 1 Bradford was a 200,000-foot gasser at 3,530-60 feet, with total depth at 3,780 feet. Price & Russell's No. 2 Bruce made 50 bbls. at 2,020-2,116 feet. The Texas Pacific Coal & Oil Co.'s No. 3 Winston-"B" made 40 bbls. from sand at 1,890-1,947 feet, total depth 1,951 feet.

Eastland County

Lobough and others abandoned their No. 1 Casey at 1,795 feet.

Callahan County

Halmack Oil Co. and Pennant Oil & Gas Co.'s No. 1 Conlee was dry and abandoned at 2,950 feet.

Mitchell County

The Eastland Oil Co.'s No. 1 Handley swabbed 20 bbls. from sand at 2,995-3,100 feet, total depth 3,110 feet.

Howard County

Owens & Sloan's No. 1 Chalk pumped 38 bbls. from sand at 1,577-86 feet but was not completed.

Coleman County

Evans & Wakefield's No. 1 Walker was dry and abandoned at 2,010 feet. The Independent Oil & Gas Co.'s No. 1 Dibrell flowed 409 bbls. from sand at 1,888-1,904 feet. Gillespie and others' No. 1 Whitfield was dry and abandoned at 2,319 feet. Ross & O'Connor's No. 1 Haygood was abandoned at 1,405 feet.

Brown County

Anderson & Shults abandoned No. 1 Allgood at 1,312 feet. Barbour Oil Co.'s No. 1 Suttles made 40 bbls. at 1,132-44 feet. Barkley & Conway's No. 7 Dunn made 100 bbls. at 1,114-33 feet. J. S. Cosden's No. 9 Baxter was a location abandoned; No. 9 Westerman was good for 375 bbls. at 1,277-95 feet. Denny's No. 1 Cason was dry and abandoned at 2,475 feet. Gillespie's No. 3 Newton made 200 bbls. at 1,272-89 feet. Gillman & McMurray's No. 4 Thompson was a 75-bbl. well at 1,221-37 feet. The Humble Oil & Refining Co.'s No. 9 Dunn was dry and abandoned at 1,155 feet. Hutton and others' No. 1 Mauldin was dry and abandoned at 1,555 feet. McCarter and others' No. 2 Allen was good for 100 bbls. from sand 1,112-27 feet; No. 4 and others' No. 2 Allen was good for 100 bbls. from sand at 1,112-27 feet; No. 4 Allen made 220 bbls. from sand at 1,106-26 feet.

Mulloy & Chandler's No. 1 Newton was abandoned at 1,264 feet. Root's No. 1 Suttles produced 35 bbls. from sand at 1,133-49 feet. E. L. Smith's No. 3 Dunn was a 25-bbl. well at 1,128-31 and 1,136-41 feet; No. 4 Dunn was dry and abandoned at 1,170 feet. The Texas Company's No. 6 Dunn was a 400-bbl. well at 1,120-38 feet; No. 7 Dunn made 150 bbls. at 1,127-54 feet; No. 8 Dunn was good for 180 bbls. from sand at 1,122-42 feet.

Treat & Co.'s No. 1 Anderson was dry and abandoned at 1,340 feet.

Reagan County

The Big Lake Oil Co.'s No. 63 University was completed for 1,080 bbls. at 2,939-60 feet.

Upton County

F. P. Zoch and others' No. 1 Keith was completed for 76 bbls. on the pump from sand at 2,564-70 feet; No. 1 Ruhman was dry and abandoned at 3,500 feet; No. 1 Union Land Co. was a failure at 3,211 feet.

Pecos County

The Tom Adams Oil Co.'s No. 1 Delvin was dry and abandoned at 1,004 feet and the location for No. 3 was abandoned. The Trans-Pecos Oil Co.'s No. 2 Bennett and others was also abandoned at 1,111 feet.

Crockett County

The Humphreys Oil Corp.'s No. 1 University was dry and abandoned at 4,391 feet.

Production By Companies

Daily average estimated production in north central Texas for the week ending May 3, 1926, by companies:

The Texas Company	11,213
Magnolia Petroleum Co.	10,135
Gulf Production Co.	8,687
Phillips Petroleum Co.	8,501
Humble Oil & Refining Co.	8,495
Texhoma Oil & Refining Co.	7,101
Prairie Oil & Gas Co.	4,511
Empire Gas & Fuel Co.	2,593
Mid-Kansas Oil & Gas Co.	2,292
Texas Pacific Coal & Oil Co.	2,220
Marland Oil Co. of Texas	1,654
Cosden Oil & Gas Co.	1,652
Simms Oil Co.	1,575
Roxana Petroleum Corp.	1,555
Barnsdall Oil Corp.	1,395
Atlantic Oil Producing Co.	903
Sinclair Oil & Gas Co.	835
Panhandle Refining Co.	763
Sun Oil Co.	668
Rio Bravo Oil Co.	581
Wilcox Oil & Gas Co.	470
Skelly Oil Co.	398
Tidal Oil Co.	248
Republic Production Co.	165
Independent Oil & Gas Co.	136
Arkansas Fuel Co.	30
Witherspoon Oil Co.	30
Dixie Oil Co.	15
Miscellaneous	106,946
Total	185,777

Production By Fields

Production by fields for week ending May 3, 1926:

Electra	
Atlantic Oil Producing Co.	60
Empire Gas & Fuel Co.	660
Gulf Production Co.	1,037
Humble Oil & Refining Co.	144
Magnolia Petroleum Co.	3,184
Panhandle Refining Co.	52
Phillips Petroleum Co.	15
Prairie Oil & Gas Co.	113
Rio Bravo Oil Co.	581
The Texas Company	3,559
Texhoma Oil Refining Co.	1,440
Miscellaneous	6,012
Total	16,857
Burkburnett	
Gulf Production Co.	452
Humble Oil & Refining Co.	382
Magnolia Petroleum Co.	2,624
Panhandle Refining Co.	253
Prairie Oil & Gas Co.	20
Sinclair Oil & Gas Co.	47
Skelly Oil Co.	153
Sun Oil Co.	60
The Texas Company	342
Texhoma Oil & Refining Co.	555
Miscellaneous	7,311
Total	12,199
Iowa Park	
Atlantic Oil Producing Co.	100
Gulf Production Co.	115
Humble Oil & Refining Co.	163
Magnolia Petroleum Co.	410
Panhandle Refining Co.	32
Roxana Petroleum Corp.	9
Simms Oil Co.	25
The Texas Company	248
Texhoma Oil & Refining Co.	357
Miscellaneous	3,083
Total	4,542
Wilbarger	
Atlantic Oil Producing Co.	123
Empire Gas & Fuel Co.	1,196
Gulf Production Co.	39
Humble Oil & Refining Co.	3,630
Phillips Petroleum Co.	4,298
Prairie Oil & Gas Co.	108
Roxana Petroleum Corp.	461
The Texas Company	42
Texhoma Oil & Refining Co.	96
Miscellaneous	4,391
Total	14,384
Archer	
Atlantic Oil Production Co.	310
Barnsdall Oil Co.	1,396
Cosden & Co.	927
Empire Gas & Fuel Co.	669
Gulf Production Co.	3,436
Humble Oil & Refining Co.	1,749
Independent Oil & Gas Co.	10
Magnolia Petroleum Co.	1,391
Marland Oil Co.	418
Panhandle Refining Co.	150
Phillips Petroleum Co.	719
Prairie Oil & Gas Co.	2,278
Roxana Petroleum Corp.	379
Simms Oil Co.	640
Sun Oil Co.	403
The Texas Company	3,588
Texhoma Oil & Refining Co.	3,501
Tidal Oil Co.	50
Miscellaneous	13,149
Total	35,162
Young	
Gulf Production Co.	309
Humble Oil & Refining Co.	351
Magnolia Petroleum Co.	165
Marland Oil Co.	1
Mid-Kansas Oil & Gas Co.	12
Panhandle Refining Co.	141
Phillips Petroleum Co.	20
Prairie Oil & Gas Co.	10
Roxana Petroleum Corp.	131
Simms Oil Co.	790
Sinclair Oil & Gas Co.	368
Sun Oil Co.	62
The Texas Company	566
Texhoma Oil & Refining Co.	276
Tidal Oil Co.	161
Miscellaneous	3,741
Total	7,044
Stephens	
Arkansas Fuel Oil Co.	25
Empire Gas & Fuel Co.	25
Gulf Production Co.	1,182
Humble Oil & Refining Co.	680
Magnolia Petroleum Co.	370
Mid-Kansas Oil & Gas Co.	1,970
Phillips Petroleum Co.	375
Prairie Oil & Gas Co.	860
Republic Production Co.	125
Roxana Petroleum Corp.	50
Simms Oil Co.	40
Sinclair Oil & Gas Co.	70
Sun Oil Co.	140
The Texas Company	1,035
Texas Pacific Coal & Oil Co.	1,129
Miscellaneous	4,925
Total	12,992
Shackelford	
Empire Gas & Fuel Co.	25
Humble Oil & Refining Co.	175
Magnolia Petroleum Co.	80
Phillips Petroleum Co.	675
Prairie Oil & Gas Co.	15
The Texas Company	215
Texhoma Oil & Refining Co.	65
Miscellaneous	3,200
Total	4,450
Ranger	
Arkansas Fuel Oil Co.	5
Gulf Production Co.	232
Humble Oil & Refining Co.	65
Magnolia Petroleum Co.	775
Mid-Kansas Oil & Gas Co.	150
Panhandle Refining Co.	135
Phillips Petroleum Co.	5
Prairie Oil & Gas Co.	575
Republic Production Co.	40
Simms Oil Co.	30
Sinclair Oil & Gas Co.	330
The Texas Company	170
Texas Pacific Coal & Oil Co.	840
Miscellaneous	2,655
Total	6,008
Eastland-Comanche	
Empire Gas & Fuel Co.	10
Humble Oil & Refining Co.	70
Magnolia Petroleum Co.	640
Mid-Kansas Oil & Gas Co.	160
Phillips Petroleum Co.	45
Prairie Oil & Gas Co.	90
Sinclair Oil & Gas Co.	20
Skelly Oil Co.	115
The Texas Company	115
Miscellaneous	735
Total	2,000
Brown	
Cosden Co.	725
Humble Oil & Gas Co.	680
Prairie Oil & Gas Co.	340
Simms Oil Co.	50
The Texas Company	650
Witherspoon Oil Co.	25
Miscellaneous	5,200
Total	7,670
Callahan	
Humble Oil & Refining Co.	3
Prairie Oil & Gas Co.	15
The Texas Company	225
Texas Pacific Coal & Oil Co.	25
Witherspoon Oil Co.	5
Miscellaneous	3,025
Total	3,298
Miscellaneous Pools	
Reagan County	33,304
Clay County	462
Montague County	2,405
Jack County	90
Throckmorton County	655
Baylor County	135
Palo Pinto County	555
Coleman County	910
Scurry County	61
Mitchell County	3,443
Crockett County	568
Upton County	210
Panhandle	
Carson County	2,428
Hutchinson County	13,370
Wheeler County	91
Gray County	484
Total	16,373
Grand total	185,777

Hutchinson County Drilling

Amarillo Oil Co.'s No. 4 Bivins "B" is a new location in the C NE of Section 13, Block Y-2, T. T. R. survey. Apex Oil Co.'s No. 1 H. E. Smith and others, drilling 2,800 feet with 5,000,000 feet of gas; No. 2, rig up. Badger Oil Co.'s No. 1 Tom Lewis, shot with 210 quarts in lime at 2,880-2,960 feet, lime pay being at 2,900-15 feet. It flowed 200 bbls. after the shot, bridged and now is making 25 bbls. Bear Creek Oil Co.'s No. 1 E. E. Watkins, spudding at 140 feet. Big Creek Oil Co.'s No. 1 Cal Merchant, spudding 267 feet. Canadian River Oil Co.'s No. 2 W. L. Kingsland is drilling at 2,951 feet with first show of oil; No. 3, shut down for storage at 2,837 feet, first gas at 2,624 and second gas at 2,810 feet; No. 4, drilling at 2,365 feet.

Canyon Oil Co.'s No. 1 J. A. Whittenburg, shut down for tankage and account casing trouble at 2,751 feet; No. 2, shut down for tankage at 2,739 feet. Center Dome Oil Co.'s No. 1 J. E. Pritchard had casing trouble at 290 feet. Clark & Hagy's No. 1 William Lake, cellar. Coble-Whittenburg's No. 1 J. A. Whittenburg, drill-

ing lime at 2,010 feet; No. 2, setting 6-inch casing at 2,845 feet; No. 3, spudded and shut down; No. 4, building rig. Cockrell & McIlroy's No. 1 H. E. Smith and others, drilling at 2,620 feet; No. 2, moving back boiler, total depth 2,595 feet. Continental Oil Co.'s No. 1 G. A. Whittenburg, rig up. Currie Brothers & Phillips' No. 1 H. E. Smith and others, total depth 2,980 feet, spraying 150 bbls. and connecting tankage. Derby Oil Co.'s No. 1 Johnson Brothers, drilling at 2,085 feet; No. 2 is a new location, 267 feet from east and west lines, and 330 feet from south line of Tract 8, Mary Whitley survey. Derby Oil Co. and others' No. 1, running 15-inch casing at 350 feet.

Dixon Creek Oil Co.'s No. 3 H. E. Smith and others was fishing 10-inch casing at 2,100 feet; No. 4, fishing bit at 2,703 feet, first gas at 2,680 feet; No. 5, straightening hole and cleaning out at 1,980 feet; No. 6, drilling at 1,610 feet; No. 7, running 10-inch casing at 2,150 feet; No. 8, drilling with show oil at 2,900 feet; No. 11, rig up; No. 12, spudding at 300 feet; No. 13, rigging up; No. 14, drilling at 2,145 feet; No. 15, rig up; No. 18, drilling at 2,280 feet; No. 21, drilling at 2,265 feet; No. 29, gas at 2,580 feet, drilling at 2,660 feet; No. 33 is a new location, 330 feet each way from SE cor. SW SW of Section 5, Block Y, M. & C. survey; No. 34, another new location, rig on the ground, 330 feet each way from NE cor. SW SW, same section; No. 35, cellar, 330 feet each way from NW cor. SW SW; and No. 36, rig building, 330 feet each way from SW cor. SW SW, same section.

Setting 10-Inch

Double 5 Oil Co.'s No. 1 E. Crockrell was setting 10-inch casing at 803 feet. Douglas Oil Co and Cline, fighting cave at 1,960 feet. Drysdale Oil Co.'s No. 1 J. F. Weatherly, 600 feet of oil in the hole from granite wash at 3,112-25 and 1,146-56 feet, total depth 3,172 feet, shut down. Echo Oil Co.'s No. 1 H. E. Smith, spudding; No. 2, rigging up. Empire Gas & Fuel Co.'s No. 1 Johnson Brothers, building rig; No. 1 J. F. Weatherly, new location rig built 330 feet each way from NE cor. Section 19, Block Y. Lee Flowers' No. 1 E. M. A. Carver, rig up. Fly-Blackburn Oil Co.'s No. 1 J. F. Weatherly, underreaming to 2,865 feet, with 10,000,000 feet of gas.

Gates Oil Co.'s No. 1 W. L. Kingsland was preparing to pump, having had first show at 2,917 feet and oil in lime at 3,003 34 feet; No. 2, shut down to shoot with 70 quarts at 2,960-3,030 feet; No. 3, drilling at 2,550 feet; No. 4, drilling at 2,500 feet. Gibson Oil Co.'s No. 1 Johnson Brothers, drilling at 1,925 feet; No. 1 W. L. Kingsland, 1,200 feet; No. 5 W. L. Kingsland, 1,365 feet.

Gibson Oil Corp. and others' No. 1 W. L. Kingsland had 1,400 feet of oil in the hole from lime at 2,887-2,939 feet; No. 1 McCormick estate is a rig. Golding & Phillips' No. 1 J. T. Hodges flowed at the rate of 500 bbls. for 2 hours from lime at 2,812-15 feet, but bridged and now making 100 bbls. W. Scott Heywood's No. 1 W. S. Christian was spudding; No. 2, cellar. Heywood and others' No. 1 E. Cockrell, shut down for storage at 3,040 feet. W. H. Holmes' No. 1 H. E. Smith and others, spraying 192 bbls. from sand at 2,718-52 feet, depth 2,785 feet. Holmes, Currie & McKnight's No. 1 H. E. Smith and others, spudding. Inspiration Oil Co.'s No. 1 Earle Thompson, shut down at 820 feet with casing trouble. Dan A. Japhet's No. 1 H. E. Smith and others, drilling at 1,880 feet. Lenix & Pattison's No. 2 Smith, rigging up. J. H. Lenix's No. 1 Johnson Brothers, drilling at 2,880 feet, with show of gas at 2,690 feet, more gas at 2,740 feet, first show of oil at 2,870 feet and 2,000,000 feet of gas at 2,880 feet.

Lucky 10 Oil Co.'s No. 1 H. E. Smith and others was drilling at 2,803 feet, spraying a little oil. Its first show was at 2,750 feet.

Marland Oil Co.'s No. 1 Johnson Brothers, drilling at 700 feet. McCamey & Shearin's No. 1 J. A. Whittenburg, a new rig building in the center of Lot 28, Caperton & Williams subdivision of the Mary Whitley survey; No. 2 is a new location in the center of Lot 14, same subdivision. The rig is on the ground.

Spudding

S. D. and W. W. McIlroy's No. 1 H. E. Smith and others was spudding at 260 feet; No. 2, rig up; No. 3, drilling at 375 feet; Herring & McIlroy's No. 2 H. E. Smith and others, drilling at 2,730 feet with 3,000,000 to 5,000,000 feet of gas at 2,530-2,730 feet; No. 3, new location with cellar, 330 feet each way NW cor. SE SW, Section 5, Block Y; No. 4, new location building rig, 330 feet each way from SW cor. NE SW, same section. McMan Oil & Gas Co.'s No. 1, drilling at 2,035 feet; No. 2, 1,970 feet; No. 3, shot with 360 quarts at 2,721-85 feet, made 506 bbls. the first 6 hours; No. 4, running 8-inch to 2,618 feet where it has first show of gas; No. 1 Johnson Brothers, depth 600 feet, skidding rig; No. 1 Johnson Brothers-Whittington, new location 330 feet each way from NE cor. SE NE, Section 21, Block Y, A. & B. survey.

J. H. Middleton's No. 1 H. E. Smith and others, drilling at 2,040 feet; No. 2, 2,050 feet; Midwest Exploration Co.'s No. 1 Johnson Brothers, rig. The same company and others' No. 1 H. E. Smith and others, drilling at 2,675 feet with first show gas at that depth; No. 2, 2,315 feet; No. 3, 415 feet; No. 4, spudding 70 feet; No. 5, rigging up; A. D. Morton's No. 1 Johnson Brothers, drilling at 2,820 feet, first show gas 2,750 feet; No. 2, new rig building 330 feet each way from SE cor. Tract 9, Mary Whitley survey.

New Domain Oil Co.'s No. 1 W. L. Kingsland, drilling 2,740 feet, first gas 2,710 feet; No. 2, 527 feet, drilling. Phillips & Heywood's No. 1 Smith, fishing at 2,395 feet.

J. R. Phillips' No. 1 J. F. Weatherly, depth 3,113 feet, flowing an average of 65 bbls. from granite wash at 3,040-65 feet. Phillips Petroleum Co.'s No. 1 Johnson Brothers & Barnum, drilling at 2,005 feet; No. 2, new rig on ground, 330 feet each way from NE cor. of east 80 acres of S half N half Section 64, Block 46, H. & T. C. survey. Phillips Petroleum Co. and Coble's No. 2 J. A. Whittenburg, depth 2,925 feet, mudded up and production quit. It had lime pay at 2,907-25 feet. Company tools were being installed; No. 3, running 6-inch casing to 2,863 feet; No. 4, drilling at 2,350 feet; No. 5, skidding rig, 660 feet; No. 6, waiting for cement to set at 675 feet; No. 7, drilling at 740 feet; No. 8, drilling at 455 feet; No. 9, building rig; No. 10, building rig. Phillips Petroleum Co.'s No. 1 Johnson Brothers-Finklea, drilling at 1,175 feet; No. 1 J. A. Whittenburg-Mary Huff, drilling at 425 feet; No. 2, rigged up; No. 3, spudding at 215 feet; No. 1 Johnson Brothers and Stephens, rigged up.

Phillips Petroleum Operations

Phillips Petroleum Co. and Gibson Oil Corp.'s No. 1 J. A. Whittenburg (M. Whitley survey) drilling at 2,105 feet; No. 3, rig on ground, new location, 330 feet each way from SW cor. N half Section 63, Block 46; No. 4, building new rig 330 feet each way from NW cor. of south 240 acres of Section 63.

Phillips Petroleum Co.'s No. 1 Johnson Brothers and Gordon, new cellar 330 feet each way from NE cor. N half NE, Section 21, Block Y, A. & B. Phillips Petroleum Co. and Parks Oil Co.'s No. 1 J. A. Whittenburg, drilling at 470 feet; No. 2, flowing 800 bbls. at 2,754-84 feet; Phillips Petroleum Co. and Gibson Oil Corp.'s No. 2 J. A. Whittenburg, spudding 170 feet. Phillips Petroleum Co., Gibson Oil Corp. and McMillen's No. 1 J. A. Whittenburg was deepened to 2,945 feet, where it had two bailers of water and was plugged back to 2,942 feet and shot with 40 quarts at 2,922-38 feet, flowing 489 bbls. afterward. Phillips Petroleum Co.'s No. 1 Johnson Brothers and McNeil, new rig 1,328 feet from west line and 7,546 feet north of south line of Section 68, Block 46, H. & T. C. survey. Phillips Petroleum Co. and Pulaski Oil Co.'s No. 1 E. Cockrell, fishing parted pipe at 2,330 feet; No. 1 J. A. Whittenburg (Section 12), cementing 8-inch casing at 2,815 feet; No. 2, building rig. Phillips Petroleum Co. and others' No. 1 Johnson Brothers made 688 bbls. from pay at 2,978-3,008 feet; No. 2 Johnson Brothers, new location 267 feet from east line, 330 feet from south line of Tract 7, Montgomery subdivision of M. Whitley survey. Phillips Petroleum Co.'s No. 4 H. E. Smith and others, flowing 200 bbls. after shot of 120 quarts in lime at 2,881-2,922 feet; No. 1 J. A. Whittenburg, 15,000,000 feet of gas at 2,890 feet, shut down; No. 2, cleaning out and swabbing with 2,400 feet of oil in the hole at 2,960 feet; No. 3, drilling at 550 feet.

Phillips Petroleum Co. and Pulaski Oil Co.'s No. 1 Johnson Brothers was drilling at 2,944 feet, with shows of oil at 2,900 and 2,928 44 feet; No. 2 had rig on the ground, new location, 330 feet each way from SW cor. of Tract 1, Mary Whitley survey. Prairie Oil & Gas Co.'s No. 2 M. Weatherly was spraying 20 bbls. from sand at 2,670-3,030 feet. The Prairie has new location for No. 3 M. Weatherly, 660 feet each way from NE cor. NW of Section 23, A. & B. survey; No. 1 Johnson Brothers (Section 4), is rigging up. W. R. Ramsey's No. 1 Johnson Brothers is fighting cave at 2,900 feet. Relief Oil Co.'s No. 1 H. E. Smith and others had casing trouble at depth of 2,275 feet; No. 2, spudding; No. 3, rigging up.

Riley & Holmes were drilling No. 1 at 1,235 feet. Roxana Petroleum Corp.'s No. 1 Lee Bivins was drilling at 1,100 feet; No. 1 H. E. Smith and others, at 2,480 feet; No. 2 H. E. Smith and others, at 2,145 feet; another No. 2 H. E. Smith at 2,838 feet setting 6-inch casing; No. 3, trying to shut off gas at 2,840 feet.

Skelly Co. Work

Skelly Oil Co.'s No. 1 Johnson Brothers' "A" was drilling at 2,800 feet; No. 2, 1,708 feet; No. 3, 1,514 feet; No. 4, cellar. Skelly's No. 1 Johnson Brothers swabbed 36 bbls. one day from sand at 2,968-98 feet; No. 2 J. A. Whittenburg was rigging up to pump at 2,949 feet; No. 3, drilling 1,400 feet; No. 4, cleaning out after 20-quart shot at 2,891-2,911 feet; No. 5, rigged up and shut down. Skiatex Oil Co.'s No. 3 W. L. Kingsland was rigged up; No. 4 drilling at 1,190 feet; No. 5 cellar.

Sinclair Oil & Gas Co. has new location for No. 1 J. L. Williams and is building rig 1,320 feet from north line and 1,520 feet from east line of Section 42, Block 47, H. & T. C. survey. Smith & Wilbank spudded and shut down No. 1 William Lyal. Smith & Bynum were preparing to shoot No. 1 J. A. Whittenburg, which was flowing 100 bbls. at 2,860-71 feet; No. 2 was rigging up. J. L. Smith's No. 1 H. E. Smith and others was drilling at 2,210 feet; No. 2, cellar; No. 3, location; No. 4, location.

Spring Creek Oil Co.'s No. 1, total depth 2,782 feet, swabbed 150 bbls. for four days from 2,690-2,782 feet. Sunny Jim Oil Co.'s No. 2 J. A. Whittenburg was drilling at 2,270 feet; No. 3, rig up. Summit Oil Co.'s No. 1 J. A. Whittenburg, drilling by tools at 2,989 feet; No. 2, fighting cave at 1,900 feet. J. A. Swindler & Son's No. 1 E. Cockrell, spudding. The Texas Company's No. 1 E. Cooper, drilling at 3,580 feet; No. 7 S. B. Burnett, drilling at 1,230 feet. Tex-O Oil Co.'s No. 1 Johnson Brothers, fishing tools at 2,735 feet. Travelers Oil Co.'s No. 1 W. L. Kingsland, drilling at 1,990 feet. Triangle Oil Co.'s No. 1 H. E. Smith and others, fishing at 2,610 feet. J. K. Hughes' No. 2-A W. L. Kingsland, rigging up standard tools at 2,150 feet; No. 3, 1,940 feet; No. 4, depth 2,760 feet, pulling pipe to skid; No. 5, running 6-inch casing at 2,764 feet, with 4,000,000 feet of gas at 2,600 feet; No. 6, spudding. J. D. Ward's No. 1 E. Cockrell, depth 2,890 feet; No. 2, rig on the ground. Western Development Co.'s No. 1 O. W. Jarvis was spudding at 320 feet. Westex Oil Co.'s No. 3 J. A. Whittenburg was drilling at 1,410 feet. White Eagle Oil & Refining Co.'s No. 1 H. E. Smith and others was flowing 15 bbls. hourly from pay lime at 2,822-40 feet, first show at 2,802 feet; No. 2 was drilling at 2,460 feet; No. 3 was drilling at 2,560 feet; 2,000,000 feet of gas at 2,450-60 feet; No. 4 was spudding at 130 feet; No. 1 J. A. Whittenburg was drilling at 1,920 feet; No. 2 J. A. Whittenburg was rigging up. White Eagle's No. 1 Johnson Brothers, which swabbed 600 to 800 bbls. initially, was making 300 bbls., total depth 2,717 feet.

Moore County

Amarillo Oil Co.'s No. 1 R. B. Masterson "J" is a new rig on the ground in the C SW NE of Section 59, Block 018, D. & P. The same company's No. 1 Terry Thompson is another new rig building, 660 feet each way from the SW cor. NW of Section 19, Block 44, H. & H. C. survey. Cadman and others' No. 1 J. T. Sneed, Jr., was spudding at 140 feet. Phillips Petroleum Co.'s No. 1 J. T. Sneed, Jr., was rebuilding rig which was burned last week, depth 1,590 feet. Moore Oil Co. was drilling No. 1 Sneed at 760 feet. Morton & Co. were building rig for No. 1 H. C. Rubert.

Prairie Oil & Gas Co. was building rig for a new test, No. 1 J. T. Sneed, Jr., 660 feet each way from NE cor. NW, Section 26, Block 6-T, T. & N. O. survey.

Carson County

Prairie Oil & Gas Co.'s No. 1 C. E. and G. W. Deahl, new location, 660 feet each way from SE cor. Section 5, Block B 5, B. & B. The Texas Company's No. 9 Burnett estate, new location, 450 feet each way from SE cor. W half Section 127, Block 5, I. & G. N. survey.

MICHIGAN MARKETERS REFER KEROSENE LAW

CHICAGO, May 8.—The meeting of the Michigan Independent Oil Men's Association held at Lansing was well attended, 125 being registered, of whom a fair proportion were representatives of refiners, marketers and equipment dealers. The chief action was in regard to the kerosene inspection law, which was finally referred to the directors to formulate a plan which will be submitted to the members.

There was a lengthy discussion of the Q. D. A. No action was taken, but there was a wide interchange of experiences. Some of the jobbers stated they rather liked the plan. They said it had become a practice in the trade to give the quantity buyers a better price than the small buyer and this discount plan gave the dealer something definite to work on. The greatest objection is the intercity business which has been eliminated from all new contracts in Wisconsin and which will be done away with as soon as the present contracts in that state have expired.

FLAT DISCOUNT PLAN OFFERED BY GULF CO.

HOUSTON, Tex., May 8.—Replacing the quantity discount plan of gasoline sales as practiced by the major marketing companies in Texas since last fall, the Gulf Refining Co. now is offering dealers a contract providing a flat discount of 3 cents a gallon.

The Gulf officials maintain that the graduated discounts on quantity sales as originated by the Standard Oil Co. of Indiana only has upset markets in Texas by permitting dealers with a large margin to reduce their prices to take business from dealers whose discount allowance has not been so great.

By the new plan all dealers, regardless of the quantity of gasoline purchased, will be given a flat 3-cent discount. This system, the Gulf officials hope, will produce a more settled market.

H. S. STEWART DIES

PITTSBURGH, Pa., May 10.—Henry S. Stewart, pioneer oil man, died in the West Penn Hospital following an operation. He was born in Glasgow, Scotland, May 10, 1848, and came to this country when 14, settling in Oil City. As a young man he worked as a tool dresser and later as a driller. In 1878 the Stewart & McDonnell Oil Contractors Co. was formed, of which he was a partner until 1890, when he took over the concern which he managed until 10 years ago.

KEROSENE PRICES CONTINUE TO CLIMB

(Continued from Page 30)

uncertain as a result of an increase in runs to stills by Mid-Continent refiners as reported in another article in this issue of The Oil and Gas Journal. This review of refinery operations showed that on May 1, 23,045 bbls. more were run to stills than on April 1.

Market students attribute the present declining refined prices to the increase in runs. They point out that refiners were able to reduce stocks materially during April and might have been able to hold prices over this period of dullness if it had not been for the marked increase in production.

Little help is expected from exporters at this time. Mid-Continent representatives of export companies buying in this district say that foreign markets are very unsettled as a result of the general strike of British trade unions and that European buyers are very slow to order fearing a large falling off in consumption and further weakening of prices.

Under these conditions it is difficult for export companies to dispose of gasoline overseas and as a result would not be inclined to add to their already reported large storage.

During the week there apparently was a concerted effort on the part of buyers to bear the fuel oil market. The inactivity which has existed in these products for several weeks has resulted in a number of refiners accumulating stocks of fuel, especially low gravities and to move these buyers were able to fill their orders at lower prices.

Gasoline and Naphtha

Gasoline prices were from an eighth to a quarter-cent lower Tuesday than a week ago, which as previously explained, was due to the slow demand the past week or 10 days. Some refiners continued to quote 11½ cents on U. S. Motor (58-60 437) gasoline but little material moved over 11¼ cents and some offers were made at still lower prices. There also was little call for the 56-58 450 grade but Oklahoma refiners were offering this in some cases on a basis of 10⅝ cents north Texas to compete with cheap offers from that State. There was a noticeable increase in cuts of 58-60, 450 gasoline during the week. Refiners explained that by this product they could furnish a better product than the 56-58 450 grade and at the same time undersell U. S. Motor gasoline prices.

Naphatha prices held firm during the week due to the strength of kerosene. As previously mentioned, kerosene and naphtha prices are almost on a parity and as a result refiners are not going to the extra expense of cutting naphtha. Few refiners were making naphtha the past week and although the demand was not improved the orders which did come in were sufficient to keep the market at 10½ to 10¾ cents.

Absence of exporters from the market resulted in a marked sagging of higher gravity gasolines. The 64-66 375 grade was offered at 12½ cents and some quotations of 12¼ cents in North Texas softened even the 12½-cent Oklahoma price. The 60-62 400 product was available as low as 12 cents but the prevailing quotation continued at 12¼ cents.

Natural Gasolines and Blends

Natural gasolines also were inactive with few inquiries being received. However, there was not a great amount of distress gasoline and it was the general opinion that it would take only a little buying at this time to start the market upward again. Grades A and AA were easily available at 10½ cents Tuesday, the B grades at 10 to 10¼ cents and Grade C at 9¾ to 10 cents.

Shipments from this field to California have fallen off following reductions in prices of the Pacific Coast manufacturers and only occasional reports of Oklahoma gasoline being sold in that State now are heard.

Considerable speculation is arising as to what the New Orleans Refining Co. will do with its gasoline contracts with the English strike in effect. This gasoline was purchased for export purposes but with foreign markets unsettled these contracts may be affected. The sellers report the gasoline moving in good shape on these contracts at present.

Kerosene and Distillates

Kerosene prices were advanced another three-quarter-cent to 10 cents during the week. Additional tank wagon increases placed a greater premium on the product which was reflected in general kerosene markets by the Standard Oil Co. of New Jersey advancing export postings. Reports that refiners had started cutting more of the product led market students to believe that the peak had been reached. This was indicated in the larger orders being placed. One refiner, however, had to buy 45 cars for delivery over the month as the company was unable to make enough to fill its own needs. Distillates were unchanged but prices were firm because of the relationship between kerosene. Efforts were being made by some buyers to contract distillates for next season but refiners so far have refused as further development of cracking is expected to place a record premium on this product next year.

Fuel Oil and Gas Oil

Fuel oil and gas oil prices declined during the week. Although still not readily available, the higher gravity fuels also were lower in line with the softening of the lower grades which have been inactive for several weeks. Fuels below 22 gravity was easily available as low as $1.25, while 24-26 fuel was offered at $1.35 and future quotations were made in a few instances at $1.32½. Higher gravities were off approximately 5 cents a grade while gas oil was quoted as low as 4 cents, due to the weakness of this product in north Texas.

The decline in fuel climaxes a long period of strength for these products during which prices have been the highest in several years.

Lubricants and Wax

Lubricants were steady and prices unchanged. The movement of lubricating oils has been improving for several weeks although some manufacturers still say it is far from active. Wax, on the other hand, is weak with few inquiries. It was quoted at 4¾ to 4⅞ cents, but some material was available below this mark.

CHARGE INFRINGEMENT

The Halliburton Oil Well Cementing Co., Perkins Oil Well Cementing Co., and Erle P. Halliburton this week filed three suits in the United States District Court for the Eastern District of Oklahoma, asking for injunctions and an accounting. The defendants named in these suits are W. R. Law, Trustee of Smith-Law Petroleum Co., and David Kinsey,, and Ellis Drilling Co., and Hall & Briscoe, Inc., and Hall-Briscoe-Nelson Drilling Co. The plaintiffs allege that the defendants are infringing on a patent issued by the United States Patent Office on a "method of cementing oil wells."

MEXICAN OIL MARKET IS AT STANDSTILL

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, 30 Church St., New York

NEW YORK, May 10.—The Mexican crude oil market is practically at a standstill, so far as new business is concerned, according to leading authorities. One prominent oil man whose company is a large producer states that he knows of no recent contracts having been made as practically all current production has long since been sold on a yearly basis.

Current prices for Mexican crude, therefore, are entirely nominal. There is no way of determining just what prices would be made on new transactions. Probably they would be somewhat higher than the latest quotations of $1.35 a barrel for light and $1.15 for heavy at Tampico, not including taxes, for cargo lots.

The state of the market is peculiar in that actual shipments of Mexican oil are very large. The explanation lies in the fact that most of the current production and existing stocks are owned by American or British refiners who wish to use this oil in their own plants, and are using it on a large scale.

It is believed that the character of the market will not change unless some new production is opened up.

NORTH TEXAS MARKET PRICES FAIRLY FIRM

WICHITA FALLS, Tex., May 12.—With little demand, either export or domestic, North Texas refined markets were quiet the past week. All products, except kerosene were slightly easier in tone but refiners were able to hold prices fairly firm as a result of many of them having disposed of much of their May output during the active markets of April.

However, the continued dullness was having its effect on North Texas markets to some extent Monday and prices on gasoline were being shaded in many instances. The U. S. Motor (58-60 437) gasoline was quoted at 11 to 11¼ cents while the 56-58 450 gasoline was offered as low as 10½ cents but with little response on the part of the buyers.

The export situation also was at a standstill, largely because of the strike in England. Exporters who buy heavily from North Texas refiners explained they had difficulty in selling gasoline at any price in Europe due to the general unsettled condition.

Although exporters were not buying, it was currently reported that some North Texas refiners had offered 64-66 375 gasoline at 12¼ cents for shipment the remainder of May. However, the general quotations ranged from 12½ cents upward.

Kerosene reached a new level during the week following another half cent advance in tank wagon throughout the territory of the Standard Oil Co. of Indiana. Buyers were unable to obtain any of the product below 10 cents. Several North Texas refiners are increasing their cuts of kerosene this month and buyers are expecting the acute scarcity of kerosene to be relieved in the near future.

Fuel oil suffered the greatest weakening in this district and by Monday 24-26 material was easy at $1.30 at Wichita Falls and as low as $1.25 at Burkburnett. There has been practically no activity along this line for more than a month, and the product usually disposed of locally or to the city of Denver, was forced to be offered in competition with Oklahoma fuel.

Gas oil also was lower and purchases as low as 3¾ cents were reported.

Natural gasolines also were inactive but manufacturers were fairly firm in their prices, due largely to the fact that there is not a great amount of naturals on hand. Grades A and AA naturals Monday were quoted from 10½ to 10¾ cents; B and BB at 10 to 10¼ and C at 9¾ to 10 cents, but just a little buying, it is claimed, would cause an advance in these prices of at least ¼ cent.

PROGRAM NATURAL GAS CONVENTION

(Continued from Page 31)

what relation would you assign between the manufacturer's meter capacity rating and customer's load factor and peak demand?

5. What stench can be mixed with natural gas that will be helpful in locating leaks and what are the advantages and disadvantages?

6. What range of accuracy can be obtained with different types of Edwards Balance and Recording Gravitometers?

7. What methods are adaptable to sweetening natural gasoline?

8. What methods have been devised for vapor tension tests of natural gasoline that show promise of giving simplified practice and more reliable results?

9. (a) What practical methods are in use for removal of dirt, sand, etc., from pipe lines?

(b) Is it advisable to use screens ahead of regulators? If so, under what conditions and how should they be installed?

The annual picture of the convention will be taken immediately after the adjournment of this meeting, followed by the usual luncheon.

The Rose Carnival parade will take place during the forenoon, and terminate at the Exposition Grounds shortly after noon.

2:00 P. M.

"Care and Operation of Gas Wells"—H. R. Pierce, Tulsa, Okla., Dunn-Lewis Oil Recovery.

6:30 P. M.

Twenty-first Annual Banquet, Mayo Hotel—Toastmaster, James A. Veasey, Tulsa, chief counsel, Carter Oil Co.

Speakers—George E. White, Marietta, Ohio; M. E. Trapp, Governor of Oklahoma; Douglas Malloch, Chicago, Ill.

THURSDAY, MAY 20, 9:30 A. M.

"What the Laboratory Means to the Natural Gas Industry"—R. M. Conner, director, Appliance Testing Laboratory of American Gas Association, Cleveland, Ohio.

REPORTS

Technical and Research Committee, H. C. Cooper, chairman, Pittsburgh, Pa.
Committee on Gas Distribution, J. H. Maxon, chairman, Muncie, Ind.
Committee on Gas Measurements, F. M. Towl, chairman, New York City.
Committee on Gas Utilization, E. D. Leland, chairman, Pittsburgh, Pa.
Committee on Gas Transportation, H. D. Hancock, chairman, Bartlesville, Okla.
Electrolysis Correlating Committee, J. D. Creveling, chairman, New York City.
Representative on American Cast Iron Pipe Standards Committee, F. F. Schauer, Pittsburgh, Pa.
Representative on Gas Safety Code Correlating Committee, Donald McDonald, New York City.
Committee on president's address.
Committee on place of meeting .
Committee on nominations.
Election of officers and directors.
Report of committee on final resolutions.

REGISTRATION

Registration booth, for both natural gas men and supply men, in Texas Building International Petroleum Exposition Grounds. Register promptly on arrival. Ladies will please register at information booth in Mayo Hotel lobby.

MEETING ROOM

The convention proceedings will be held in the New York Building.

LUNCHEON

Luncheon will be served in the Louisiana Building, adjoining the Texas Building, on Monday, Tuesday and Wednesday, from 12 o'clock until 2 o'clock. Tickets, which are free, can be obtained by all badge wearers at the registration booth. Compliments of Natural Gas Supply Men, Inc.

PHOTOGRAPH

The convention photograph will be taken on Wednesday, following the adjournment of the morning meeting, at a place to be announced.

BANQUET TICKETS

The greatest number that can be accommodated at the banquet is 868, so secure your tickets early to avoid disappointment and to enable necessary arrangements to be made with the Hotel Mayo.. Tickets on sale at the registration booth.

DEMAND VERY ACTIVE, WITH PRICES STRONG

(Continued from Page 128)

ers will probably accumulate some gas oil when convenient as the outlook is that the demand for gas oil for furnace oil will be large next season, especially if the present price range on distillates is continued.

Heavier Fuel Oil Easier

Fuel oil is a little easier in the heavier gravities but firm and unchanged for the lighter oils. These are being run to the cracking stills to a great extent and only small lots are available. The demand continues limited to present needs. Some consumers are threatening to change to other fuels. One large Ohio glass company when solicited for orders replied it would not pay over $1 and that it was at present using both natural and artificial gas. Another large glass company has threatened to change to some other fuel but it is not believed it will do so. Only a very few contracts for any length of time are being made, and consumers whose contracts have expired are still buying in the spot market while waiting for lower prices. One contract for a moderate amount of oil was signed during the week for the remainder of the year. This contract was based on 36 gravity crude with a minimum of $1.15 and a maximum of $1.70. The present price was $1.40.

Lubs in Demand

Lubricating oils are selling rapidly and largely to the jobbing trade who are still stocking up for the coming season. There is more urgency in the demand as the consumption increases and some refiners report shipments larger than any previous season. There is a general feeling of prosperity in this branch of the industry and some refiners and compounders of merit brands of oils are very enthusiastic regarding the business they are doing and the prospects. The export demand is quiet, although one large refiner reports heavy deliveries on contracts. Prices remain firm and unchanged.

Tank Wagon Prices

The only change in tank wagon prices in this territory has been the advance of one-half cent a gallon on kerosene. The trade is waiting in momentary expectancy of an increase in the gasoline tank wagon price.

Generally the jobbers are having a very large gallonage for the time of the year. Many estimate their sales as better than 20 per cent ahead of last year.

The Roxana Petroleum Corp. is extending its list of service stations gradually and the report is that several additional bulk stations will be built, one of these on the North Shore where the Shell products have been featured by a leading independent oil company. The company is transferring some of its sales force to Moline on June 1, where a sales division has been established. The organization has a number of stations in the vicinity. Generally the activity of the company is believed to be preparatory to the marketing of the output of its new refinery at East Chicago, work on which will be actively carried on by its own staff of construction engineers.

TIGHTENING UP OF GASOLINE IN EAST

(Continued from Page 129)

fined oil at Atlantic ports by tanker during the week ended May 5 were 4,422,000 bbls., a daily average of 632,000 bbls. This compares with 4,113,000 bbls., or 588,000 bbls., the week ended April 28.

Receipts from the Gulf Coast for the week ended May 5 were 2,779,000 bbls., a daily average of 397,000 bbls. Those from the Pacific Coast totaled 749,000 bbls., a daily average of 107,000. Imports totaled 894,000 bbls., a daily average of 128,000 bbls.

The following table shows estimated daily average receipts of crude and refined oil by water at Atlantic Coast ports from the Gulf and Pacific Coasts of the United States, and imports, for the last three weeks; also monthly record for the last 12 months, (figures in barrels):

	Week Ended		
	May 5	Apr. 28	Apr. 21
Gulf Coast	397,000	358,000	261,000
Pacific Coast	107,000	93,000	136,000
Imports	128,000	137,000	186,000
Total	632,000	588,000	583,000

Daily Averages By Months

	Gulf	Pacific	Imps.	Total
1926:				
April	326,000	92,000	146,000	564,000
March	317,000	97,000	178,000	592,000
February	352,000	73,000	122,000	527,000
January	279,000	59,000	96,000	434,000
1925:				
December	298,000	56,000	103,000	457,000
November	259,000	36,000	92,000	387,000
October	249,000	36,000	102,000	387,000
September	306,000	66,000	76,000	448,000
August	291,000	54,000	90,000	435,000
July	391,000	63,000	107,000	561,000
June	379,000	66,000	118,000	563,000
May	312,000	81,000	145,000	538,000

The foregoing estimates are based on the carrying capacity of incoming oil-laden tankers.

USING UP CURRENT CRUDE OIL SUPPLY

(Continued from Page 43)

interesting because it shows the monthly "changes in stock" of the three vital factors: pipe line and tank farm stocks, crude at refineries and all refined products at refineries. The statistical table under the title "Supply and Demand," that appears each month in The Oil and Gas Journal, is the basis for Graphs 6 and 7, and should be studied in connection with them.

Situation Summarized

Probably nothing is more certain than that the total demand for petroleum products in 1926 will show a substantial increase over 1925—and it is reassuring that in the first three months of 1926 the total stocks of crude and refined have been almost stationary at slightly over 543,000,000 barrels. In fact the fluctuations in total stocks have been less than one-tenth of 1 per cent.

From January 31 to March 31 crude oil stocks dropped from 422,241,000 barrels. to 419,388,000 barrels—a decrease of 2,853,000 barrels. On the other hand stocks of refined products at refineries increased from 120,898,000 barrels to 124,061,000 barrels—an increase of 3,163,000 barrels. This leaves a net increase of only 310,000 barrels in a total of over 543,000,000 barrels.

SUBSTANTIAL INCREASE IN REFINERY RUNS

(Continued from Page 33)

Refiners Corp. offset to some extent the general increases at other plants.

Kansas

Runs to stills in Kansas were increased 5,625 bbls. daily to a total of 78,300 bbls. on May 1. However, the largest part of this gain was traceable to the Wichita plant of the Barnsdall Refineries, Inc. This plant on April 1 was only rerunning and hence was not listed among the plants actually operating. By May 1 this plant was running 3,000 bbls. daily, which swelled the Kansas figures materially.

Important in Kansas operations during the month was the acquiring of control by the Derby Oil Co. of Wichita in the plant at Russell, until recently owned by the West Kansas Refining Co. This plant was sold the past week to a group of Russell business men, who in turn leased it to the Russell County Pipe Line Co., in which company the Derby Oil Co. owns a large interest.

North Central Texas

Refining operations in North Central Texas were not materially changed and as a result total runs to stills on May 1 showed an increase of only 1,005 bbls. over the throughput of April 1. Thirteen of the 32 operating plants listed increased their runs but all the gains were comparatively small and were partly offset by decreases in others.

The only important changes were by the Primrose Refining Co., which resumed operations at its Wichita Falls plant after being shut down several months, and by the White Eagle Oil & Refining Co., which reduced runs at its Fort Worth plant from 4,000 to 2,500 bbls. daily.

The Wilson Brothers Refining Co. also is running some crude now. It has been rerunning several months. The Dale Oil & Refining Co. plant at Electra still was shut down the first of the month, but officials of the company expected to resume operations before May 10. This plant has been shut down since March as a result of a fire.

North Louisiana-Arkansas

The increase in North Louisiana was due almost entirely to the Louisiana Oil & Refining Corp., which on May 1 was handling 18,800 bbls. of crude. This represented a gain of more than 4,000 bbls. in daily runs since April 1. The Shreveport Producing & Refining Co. at Shreveport also increased its runs, but this was offset by a reduction at the Ardis plant of The Texas Company.

Arkansas refiners boosted their runs a total of 2,200 bbls. daily, making a total throughput on May 1 of 20,655 bbls. The Houston Oil Co. plant at Camden showed the largest gain, jumping its runs from 2,100 bbls. on April 1 to 3,000 bbls. on May 1. The Root Refineries plant at El Dorado also was up 520 bbls., and the Cross Refining Co. plant at Smackover 500 bbls.

North Louisiana and Arkansas were the only two refining districts of the Mid-Continent in which runs to stills were increased May 1, 1926, over May 1, 1925. North Louisiana runs were 7,300 bbls. and Arkansas 2,205 bbls. greater this year. This was due to the greater development of the oil fields there and the increased production of the Smackover and El Dorado fields.

SKIMMING PLANT BURNED

SMACKOVER, Ark., May 8.—The 3,000-bbl. skimming plant of the H. H. Cross Co., located here was badly damaged by fire today. Practically the entire plant with the exception of the boiler plant and office building was damaged. The loss was estimated between $75,000 and $100,000.

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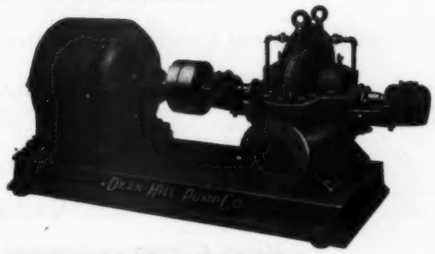

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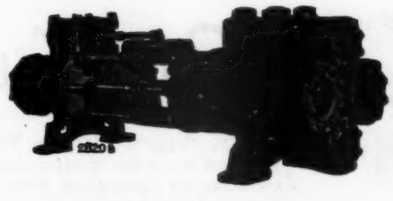

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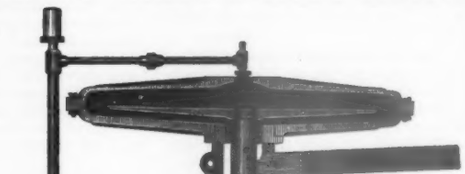

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railroad aided in bringing the flames under control. The engine was brought near the plant and the crew directed streams of water and steam on the flames. Officials of the company stated today that the plant would be rebuilt at once.

MAY FORM NEW NATURAL GAS DIVISION

(Continued from Page 31)

the Empire Companies, Bartlesville, Okla.; H. C. Morris, of the Dallas Gas Co., Dallas, Tex.; F. L. Chase, of the Lone Star Gas Co., Dallas., and A. W. Leonard, of the Oklahoma Natural Gas Co., Tulsa, as an ex-officio member as president of the association, was appointed to consider ways and means and draw up a plan for the organization of a southwestern division of the Natural Gas Association. This committee has discussed the matter and its report, to be presented to the convention next week, will be considered by the board of directors of the association and by the association itself.

Another feature of the convention next week will be the discussion of many subjects of interest to the operating departments of the various gas companies. The entire session Wednesday morning has been turned over to these discussions with J. D. Creveling, of Henry L. Doherty & Co., acting as discussion chairman. Topics to be considered cover a wide range as may be seen by a glance at the accompanying program.

Officers of the Natural Gas Association of America are:

A. W. Leonard, Tusa, president; R. W. Gallagher, Cleveland, vice president, and Guy F. Batchelor, Pittsburgh, secretary and treasurer.

Directors

Terms Expire 1926

F. L. Chase, Dallas, Tex., Edwin Robinson, Fairmont, W. Va.; T. B. Gregory, Pittsburgh, Pa.; N. C. McGowen, Shreveport, La.; H. C. Cooper, Pittsburgh, Pa.; S. W. Meals, Pittsburgh, Pa.

Terms Expire 1927

L. K. Langdon, Cincinnati, Ohio; H. C. Morris, Dallas, Tex., W. H. Thompson, Columbus, Ohio; William B. Way, Charleston, W. Va.; A. W. Robertson, Pittsburgh, Pa.; H. L. Montgomery, Bartlesville, Okla.

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John B. Corrin, Pittsburgh, Pa.; H. A. Wallace, Charleston, W. Va.; J. D. Creveling, New York City; L. B. Denning, Pittsburgh, Pa.; H. J. Hoover, Cincinnati, Ohio; B. C. Oliphant, Warren, Pa.; Kay C. Krick, Columbus, Ohio; Joseph L. Guffey, Pittsburgh, Pa.; James T. Lynn, Detroit, Mich.; Ernest L. Brundrett, Philadelphia, Pa.; Martin B. Daly, Cleveland, Ohio; A. B. Macbeth, Los Angeles, Cal.; John M. Garard, Columbus, Ohio; W. H. McKenzie, Kansas City, Kans.

Supply Men

Officers and directors of the Natural Gas Supply Men., Inc., are:

Fred A. Miller, S. R. Dresser Manufacturing Co., Bradford, Pa., president; O. F. Felix, Equitable Meter & Manufacturing Co., Pittsburgh, Pa., vice president; T. C. Clifford, Pittsburgh Meter Co., Pittsburgh, Pa., treasurer; and Guy F. Batchelor, Natural Gas Association, Pittsburgh, Pa., secretary.

Directors

Terms Expire 1926

Roy E. Kohn, Continental Supply Co.; William Patterson, Frick & Lindsay Co.; R. A. McKinney, Manhattan Rubber Manufacturing Co.; Hugh Trimble, National Suppl yCo.; C. W. Wardell, Radiant Heat Corporation of America.

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Fred A. Miller, S. R. Dresser Manufacturing Co.; T. C. Clifford, Pittsburgh Meter Co.; William McKee, Chaplin-Fulton Manufacturing Co.; E. P. Corey, Youngstown Sheet & Tube Co.; Larmour Adams, Metric Metal Works.

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Oiliness in Industrial Lubrication

New Method of Testing Shows Difference Between Commonly Used Lubricants. Experimental Work Explained

By W. C. Wilharm*
Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa.

IMPORTANCE OF OILINESS

In the accompanying paper the importance of efficient lubrication is outlined and the mechanism and possibilities for improving this vital factor as it especially applies to electrical machinery and such other types as are not subjected to high temperatures are discussed. The property of oiliness is considered as a means of improvement and after a brief review of the literature a modified inclined plane is described as a method of measuring this property.

A number of determinations were made with a brass plate and steel slider lubricated with several typical lubricants. An analysis of the results shows a difference in the lubricating value of various lubricants that is not shown in the tests usually made and throws more light on the mechanism of the property of oiliness.

Inasmuch as the service requirements of bearings are becoming more and more exacting with the inevitable result that bearing troubles are on the increase, it seemed desirable to undertake a fundamental study of lubrication from the standpoint of the lubricants themselves. In the electrical industry especially, where machines are being built larger and heavier to meet the demand of superpower, lubrication is a real problem. The conditions are often such that the bearings cannot be increased in size in the same ratio that the machines are made larger. As a result the bearing pressures are sometimes more than twice what was considered a safe load several years ago. With such conditions existing much more is expected from the lubricant than was formerly the case.

The selection of lubricants is one of the most important and least understood factors in reducing friction. The usual tests are inadequate for judging intelligently the value of an oil as a lubricant. The general tests include such physical determinations as flash, fire, cold test, specific gravity and viscosity. Some special tests, as emulsion tests, carbon residue, etc., are made to fit certain types of lubrication. Chemical tests are made to determine whether the lubricant is neutral and to detect admixtures such as fatty oils, soaps, and fillers. Of all the properties generally measured, viscosity is the only one that is actually a measure of lubrication value. The remaining physical tests are made to insure the proper viscosity under all conditions or to measure some safety factor. The chemical tests at present do not usually apply to the lubricating value, although fatty oils and soaps are admittedly better lubricants in some respects than straight mineral oils. Fluids of the same viscosity are known to vary greatly in their value as lubricants, so it is obvious that a test other than viscosity is required.

In view of these facts, a satisfactory program of investigation should follow about the following lines:

(1) Find what is meant by an ideal lubricant and a means of identifying it without the necessity for service tests.

(2) Search the present supply for the ideal.

(3) In case the ideal lubricant is not available, find out if it can be produced.

Mechanism of Lubrication

A bearing well designed, well machined and running at a fair speed runs the major portion of its life on a fluid film of lubricant of appreciable thickness. This is known as the fluid film regime of the bearing. The friction would be entirely in the fluid film, owing to the friction of the molecules themselves, called by the Germans, "innere bung (internal rubbing)" or in other words, viscosity. It, therefore, follows that with a lubricant of lower viscosity a more economical use of power will be effected. However, the bearing does not run at all times on a fluid film. In certain periods of its operation the film ruptures and metal-to-metal contact occurs. In this ruptured film regime the viscosity of the lubricant is no longer the important factor. It is in this regime that the property generally known as oiliness functions. Wilson and Barnard define it as that property of lubricants by virtue of which one fluid gives lower coefficients of friction than another fluid of the same viscosity, generally at low speed or high loads.

Importance of Oiliness

The fluid film regime is the ideal lubrication, but no bearing can run entirely on this film. It is when the fluid film ruptures that all the drainage is done to rubbing surfaces. Most bearings go through a regime of ruptured film lubrication when starting and stopping, since the speed is not high enough at these times to build and maintain the fluid film. To insure the fluid film regime oils of higher viscosity are used, as the film-forming tendencies are mainly a function of the speed, viscosity and load. This in turn materially increases the friction and consequently the power loss of the machine. If when the fluid film ruptures there is a property of the lubricant that materially reduces the friction and prevents abrasion of the surface, it is not so important to maintain the fluid film at the expense of higher friction throughout the major portion of the bearing service.

In some electrical machinery the bearing pressures have become so high that it is doubtful if a fluid film forms at all, and in these cases the oiliness property is all important. Gears, pistons, cross heads, etc., fall in the same class, as there is no fluid film between rubbing surfaces of these types. The property would also be a good insurance against damage in the case of discontinued oil supply or some other mechanical neglect or mistake.

Nature of Oiliness

It is well known that various lubricants differ in the property of oiliness, although the viscosities are about the same. This has been shown by field experience and by quantitative laboratory measurements. Fatty oils and acids invariably give lower values of static friction than mineral oils when two surfaces are rubbed together under conditions of ruptured film lubrication. It is also shown in machine work such as lathe turning and pipe threading.

The mechanism of the property and the property itself are still the cause of much discussion. Wilson and Barnard describe the property as due to a constituent of the lubricant that forms on the surface of the metals as a tenaciously absorbed film of colloidal dimensions preventing metal-to-metal contact and thus lowering the friction.

Hardy and collaborators in their classical researches on boundary lubrication, which is the ruptured film regime, describe the mechanism as following Amonton's fundamental law of sliding friction—that the friction is proportional to the weight of the slider and is independent of the area of contact. According to them a film of lubricant several molecules deep is built up owing to the orientation of molecules as described by Langmuir, thus preventing the attractive force of the surfaces from exerting its full influence. In making measurements of static friction by sliding a spherical surface on a flat surface of various combinations of material lubricated with pure chemical compounds, they found varying friction and much evidence that the friction is a function of the chemical constitution of the lubricant Possibly the most discussed property of fluids in connection with oiliness is the interfacial tension between the lubricant and the bearing surface. Southcombe and Wells, making surface tension measurements between several oils and water, found, in the cases they tried, that those compounds that lowered the interfacial tension water and oil gave exceptionally good lubricating values. It cannot be concluded from their experiments that any substance that lowers the interfacial tension between water and oil makes a good lubricant. Wilson and Barnard made some measurements of interfacial tension between various compounds and mercury more nearly approximating actual conditions than water and oil, and found that materials of low surface tension were not always good lubricants. It is possible that low surface tension is one of the properties of a good lubricant, but evidently the nature and structure of the film is also important, as many compounds giving low surface tension measurements are deficient in oiliness.

There is fairly general agreement on the following points regarding oiliness:

(1) A property of lubricants, other than viscosity, generally known as oiliness, is of considerable importance in economic lubrication.

(2) It is a function of the chemical constitution of the lubricants.

(3) It is generally attributed to an adsorbed film on the surfaces.

Measurement of Oiliness

In searching for a method for measuring the property of oiliness the literature was carefully reviewed, but no entirely satisfactory method was found. The most natural method would be to take measurements on a bearing especially designed for such purposes and approximating actual conditions. This was soon found to be impracticable, however, as it was almost impossible to check measurements. The measurements must be taken when the fluid film is ruptured, and consequently the surfaces become torn and scored and cannot be reground without changing the conditions of the test.

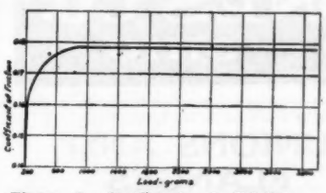

Figure 2—Coefficient of Friction—Franklin Lubricating Oil 3-0.1 Inch Flat Steel Contact Areas on Brass Surface.

Various patented mechanisms on the market, such as surface tension instruments and adhesion testers, were also eliminated. It may be possible to combine such measurements as surface tension and some now unknown properties as chemical structure into an expression of oiliness when more is known about the mechanism of its operation.

Since the knowledge of the mechanism of the property is limited and debated, the most positive measurement would be one of the friction between surfaces of materials used for bearings and journals, lubricated with the material in question. To make such measurements the method should possess the following characteristics:

(1) It should measure the friction in the state of ruptured film lubrication.

(2) Surfaces should approximate actual conditions as far as possible.

(3) Surfaces should be reproducible.

(4) Results should be reproducible within a reasonable percentage of error.

A machine known as the Deeley machine determines the oiliness by measuring the friction between rotating disks of metal or other material at a slow speed and heavy load. The results seem to be satisfactory, but the machine is rather complicated and the results are difficult to obtain. The surfaces become abraded and need frequent grinding.

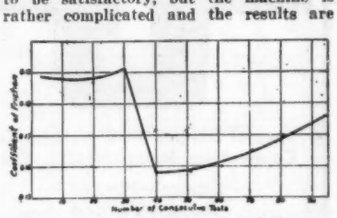

Figure 3—Coefficient of Friction—Franklin Lubricating Oil Steel Balls on Brass Surface

The simplest and most effective method seemed to be a measurement of the static friction under relatively high pressure. This method was used successfully by Hardy and Doubleday and also Wilson and Barnard. A modification of this method was adopted and apparatus constructed.

Apparatus

The apparatus consists of an inclined plane. The static friction is taken from the angle of inclination when a slider just moves upon a specially prepared surface. Provision is made for temperature and pressure control. The actual surfaces used for the measurement consist of a plate 3 by 5 by ¼ inches made of one of the metals used for bearings or journals and a slider consisting of three 1-inch balls, also made of one of the generally used metals, held rigidly on a frame so no rotation can take place. Special care must be exercised in insulating the apparatus from building shocks and vibrations. The initial motion of the slider by visual means is detected by means of a micrometer screw in series with a small voltage and an indicating device such as a voltmeter so that the circuit is closed when the slider moves less than 0.001 of an inch. After the slider has been placed in position for a determination the micrometer is screwed up to the slider from the direction in which slip occurs and then backed off just far enough to break the contact. The slightest movement of the slider remakes the contact, which can readily be observed with the indicating device.

Grinding and Polishing

Considerable difficulty was experienced in grinding and polishing the surfaces to such a degree that reproducible results could be obtained. It is necessary to select uniform, clean metals and use special precaution in grinding. After machine-grinding the surfaces as smooth and true as possible, they are subjected to several grades of emery (SFX and SF10 X) and finally levigated alumina. The emery and alumina grindings are made under a liquid of exceptionally poor lubricating properties on a plate glass covered with broadcloth. The spherical surfaces are polished by hand with the same materials. The broadcloth is saturated with the

*Paper presented before meeting of Industrial and Engineering Chemistry, American Chemical Society, Tulsa, Okla., and reprinted from society's official publication, "Industrial and Engineering Chemistry."

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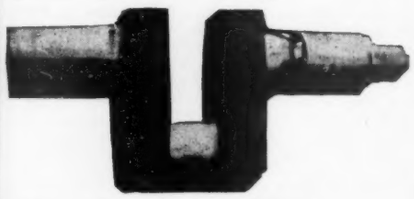
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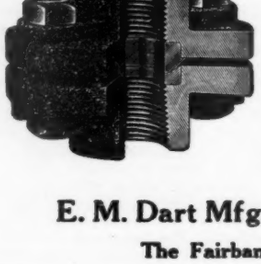
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grinding materials and wiped over the surfaces in much the same manner as in polishing shoes. To remove one lubricant and prepare the surfaces for another material necessitates several of these grinding operations with lubricant-free materials.

The lubricants under examination are spread on the plate and slider alike. Various methods of obtaining a uniform film may be used.

Experimental

A number of static friction measurements have been made with a steel slider on a brass plate. The surfaces were polished as described above and lubricated with several materials varying in physical properties and chemical constitution. When the results are tabulated they show fair agreement with each other. They also support some theories promotted by other investigators and suggest new points of view of the mechanism.

The first series of tests, tabulated in Table I, was made with the brass plate and a slider with three steel pegs 0.10 inch in diameter ground and polished as flat as possible. Very small scratches running in the direction of the polishing motion were visible. The determinations were made so that these scratches in some cases crossed and in others ran parallel to the direction of motion.

The lubricant was a straight steam-distilled paraffin-base oil made from a Franklin, Pa., crude. It was not partially cracked to aid in dewaxing, but was dewaxed by refrigeration and centrifuging. Its specific gravity at 15 degrees Centigrade was 0.879, and it had a Saybolt viscosity at 100 degrees Fahrenheit of 693 seconds and at 130 degrees Fahrenheit of 354 seconds.

According to Table I, the coefficient of friction appears to be to a certain extent a function of the load and also of the latent period. The coefficient rises until the load becomes about 500 grams and then becomes fairly constant with a value of 0.176. The latent period also seems to have a similar effect, but owing to the small number of tests made with long latent periods, too much stress should not be placed on them. The effect of the load is shown graphically in Figure 2. When the excess or thick film of oil was removed the coefficient was the same as for the thick pool.

When the film of oil was washed from the surfaces with soap and water, the coefficient dropped to a new low point. What no doubt happened was that the metal surfaces adsorbed a film of the soap and the readings obtained were the coefficients for the soap.

The surfaces were then reground under water in the same manner as before and another series of tests was made with several lubricants (Table II.)

TABLE II—SEVERAL LUBRICANTS

Load Grams	Latent period	Mean angle of slip Degrees	Maximum variation from mean Per cent	No. of detns.	coeff. of friction
		No lubricant applied			
200	0	37.8	12.7	8	0.776
		Surfaces rubbed with surgical cotton saturated with redistilled denatured alcohol			
200	0	26.1	9.2	4	0.491
		Crude oil spread on both surfaces*			
200	0	10.7	30.0	9	0.188
		Oleic acid rubbed into crude oil film			
200	0	7.3	12.3	8	0.128
3000	0	6.8	10.3	3	0.119

*Same crude from which the oil used in first series was refined. Specific gravity at 15 degrees Centigrade, 0.868; viscosity at 100 degrees Fahrenheit, 108 seconds; at 130 degrees Fahrenheit, 71 seconds.

The close agreement of the coefficient for the crude oil (Table II) with that for the refined oil (Table I) made from this crude indicates that the refining process has not been detrimental to the lubricating property of the oil, and the great variation in the viscosities of the two emphasizes the belief that there are other properties than viscosity to consider when judging the value of an oil as a lubricant.

The brass plate was again reground to a mirror finish and the slider with the flat surfaces was replaced by three 1-inch steel balls mounted rigidly on a plate in triangular form. A series of readings was taken using the refined Pennsylvania oil.

TABLE III—REFINED PENNSYLVANIA OIL AND STEEL BALLS

Load Grams	Latent Period	Mean angle of slip Degrees	Maximum variation from mean Per cent	No. of detns.	coeff. of friction
		No lubricant applied			
369	0	23.9	10.8	10	0.445
		Franklin lubricating oil spread on surface			
369	0 to 27 minutes	10.7	16.0	10	0.188
		Excess oil washed off with ether and cotton			
369	0	10.6	10.6	10	0.187
369	0	10.8	17.5	10	0.191
369	0	9.0	5.5	10	0.158
369	0 to 1 hour	9.0	7.8	12	0.158
369	0	9.1	6.6	10	0.160
369	0	9.4	8.5	10	0.165
369	0	9.7	6.2	11	0.170

The values obtained in this case check those obtained before the same oil with flat surfaces and heavy loads. The decreased area of contact in the case of the spherical slider produces the same effect as the heavy load with the flat-surfaced slider. A large number of determinations were made without repolishing the steel contact areas and each determination was made on a new, unused part of the brass surface. The coefficient drops after a number of these determinations have been made, as shown in Figure 3. The variations between the separate determinations also fall in magnitude simultaneously with the decreasing coefficient. The curve slowly

TABLE I—PENNSYLVANIA LUBRICATING OIL

*Load Grams	Latent †period	Mean angle of slip Degrees	Maximum variation from mean Per cent	No. of detns.	Mean coeff. of friction
		Oil spread on both surfaces in an appreciably thick pool			
200	1 to 20 minutes	8.4	9.5	3	0.149
200	0	8.4	8.3	7	0.149
200	0	8.7	5.7	4	0.152
200	16 hours	11.7	...	1	0.207
200	0	9.1	8.8	6	0.160
500	0	10.0	6.0	3	0.176
800	0	10.4	11.5	9	0.182
1100	0	9.9	7.1	12	0.173
1400	0	10.0	7.0	6	0.176
2000	0	10.3	6.8	6	0.182
2600	0	10.1	8.9	6	0.179
3800	0 to 1 hour	9.8	5.1	8	0.173
		Oil wiped off with clean cloth (cotton); no visible film			
3800	0	9.9	3.1	4	0.175
		Washed surfaces with soap and water; dried with ethyl alcohol and surgical cotton			
200	0	6.2	4.8	4	0.108
3800	0	5.7	5.3	3	0.099

*The actual weight of the slider is given, as the exact area of contact is unknown. †The latent period marks the time the slider sets at rest, after being placed in position, until the plane is started to incline.

rises again after dropping to the low coefficient, but no explanation of this can be offered at present. The contact area of the steel showed as a brass spot when examined under a microscope and the brass showed scratches in the paths of motion.

After some changes in the apparatus as outlined previously—namely, insulation from vibrations and the contact method for detecting the initial motion—another series of determinations was made with lard oil as the lubricant. The oil was diluted with ethyl ether and applied to the surfaces with a cotton sponge.

TABLE IV—EFFECT OF LARD OIL

Load Grams	Latent period	Mean angle of slip Degrees	Maximum variation from mean Per cent	No. of detns.	coeff. of friction
369	0	7.1	4.2	7	0.125
369	1 hour	8.1	...	1	0.143
	Cleaned surfaces with ether and cotton				
369	0	6.6	4.5	5	0.116
	One hour after washing with ether				
369	0	7.6	0	2	0.134
	Again cleaned with ether and cotton				
369	0	6.7	4.5	5	0.117

The changes in apparatus reduced the margin of error, making maximum deviations less than 4.5 per cent in the case of the lard oil. The close agreement of these results with those obtained with oleic acid (Table II) is not surprising since the active principle in lard oil is oleic acid. The coefficient for the heavy load on oleic acid agrees with the readings on the ether-washed surfaces for lard oil, and also the lighter load oleic acid test agrees with the lard oil tests taken after the surfaces have been allowed to stand long enough to recover the effects of the ether wash.

Theory

On examining under a microscope the surfaces where motion has occurred, it has been noted that in every case the softer and weaker metal has been cut and the harder metal has built up a spot of the softer metal over the area of contact. In the particular cases noted the brass plate has been cut in the path of the motion. The cut shows uniformity of width and depth as far as can be seen with the microscope. The steel balls built up a brass coat, fairly round, at the area of contact. This same effect was noted by Marvin in making oil tests with brass and steel surfaces. The question is raised as to why the surfaces should become altered in this manner if they are actually separated from metal-to-metal contact by an adsorbed film of lubricant, one or more molecules thick. It is generally agreed that oiliness is a function of some sort of adsorbed film, although there is a difference of opinion regarding the exact character and thickness of the film.

This cutting of the softer metal seems to be in agreement with the theory of Bingham on the mechanism of cutting fluids. The theory is that the tool cutting a piece of metal is exerting no more than a wedging action of the tool between the parent metal and what becomes the chip. In other words, the metal is pried loose and the action of the lubricant takes place at the rubbing surfaces of the chip and the tool and the tool against the parent metal. The conditions encountered in the motion of surfaces over each other can be satisfied by applying this theory. The energy expenditure in this motion—i.e., the friction—may be due, in part at least, to this cutting action. Even the polished surfaces used in the static friction tests are evidently not smooth. They must be a mass of projecting asperities that interlock and subsequently wedge off the weaker metal. The lubricant functions in these minute cutting-tool effects in the same manner as it does in actual lathe cutting.

Coulomb, back in 1785, proposed the theory that friction was due to interlocking asperities, the actual surfaces being frictionless. This theory has met with much opposition from several investigators. Rayleigh disputed the theory that a polished surface was covered with such projections. Hardy agrees with Rayleigh in saying that the projections of a polished surface are insensible and attributes the friction to the attraction of one metal surface toward another. He goes further and applies Amonton's law—that the friction is independent of the area of contact and directly proportional to the load. The reduction of friction by various chemical substances is caused, according to him, by dissipating the attractive force of the two surfaces through the adsorbed film of these substances. Assuming there is an attractive force, as there no doubt is, and that the surfaces are contaminated or covered with a film of lubricant one or more molecules thick, there should be no tearing of the surfaces. It is not conceivable that the attractive force of two surfaces acting through an interface of lubricant would be greater than the cohesive force of the internal molecules of the mass of metal. In practical cases there must be interlocking asperities, even with the highly polished surfaces used in the foregoing static friction tests. If it were possible to make surfaces so that there would be no interlocking, Amonton's law would hold, but when speaking in terms of practical lubrication the friction would be also a function of the area of contact.

Possibly this theory would explain the effect shown in Figure 2 and also the facts brought out in Table III.

According to the laws of fluid friction there would be some increase in friction due to the thinning of the film by increasing the load. It is also possible that this decrease in film thickness allows more of the projections to interlock, causing an additional rise in friction. The fact that the curve straightens to a fairly constant value would indicate that after a definite pressure the film has thinned to the limit and higher pressure, within the scope used in the tests, cannot cause further interlocking of asperities. When the spherical slider is used the values are equivalent to the heavy load values of the flat-surfaced slider. The spherical surface has a much smaller area of contact and, being heavier, no doubt exerts a pressure equivalent to or greater than the flat surfaces with heavy loads. The time factor or latent period may produce the same effect by gradually squeezing out part of the film. In the case of the facts shown in Table III the reduction of the friction and the decrease in margin of error are possibly due to the building up of the brass spot on the steel contact area, smoothing over the irregularities. This same effect is manifested in bearings. It is well known that a bearing runs with less friction after it has been worn in.

If this assumption—namely, that there are interlocking projections—is correct, several conclusions that throw more light on the property of oiliness may be drawn:

(1) The secret of good oiliness would be to have a tenaciously adsorbed film of such thickness that the projecting asperities could not interlock.

(2) The friction would be a function of the attractive forces of the metals, the tensile strength of the metals, and the internal friction of the lubricant. This may partly explain why soft bearing metals such as babbitts give lower resistance than the harder metals.

Conclusions

Accepting the property of oiliness as being important in the selection of lubricants for industrial lubrication, a method of measuring this property has been developed and found to give fairly reliable results.

With brass and steel surfaces it is evident that there is an appreciable difference between various commonly used lubricants, although this difference is not shown in the tests usually made.

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Detailed Operations in All Fields for Month of April

SUMMARY OF ALL FIELDS

Field—	Comp.	Prod.	Dry	Gas
Eastern	321	1,681	45	61
Lima	39	485	1	1
Indiana	6	46	3	0
Central Ohio	32	181	6	18
Kentucky	92	939	23	2
Tennessee	8	835	1	0
Illinois	27	281	12	0
Kansas	201	20,330	62	12
Oklahoma	467	105,707	132	45
North Texas	387	33,287	139	12
East Central Texas	9	50	8	0
Arkansas	141	17,092	27	6
North Louisiana	103	10,621	17	10
Gulf Coast	87	48,310	26	0
Southwest Texas	34	3,518	11	14
Wyoming	37	12,229	5	4
Montana	30	4,604	6	3
Colorado	10	0	10	0
New Mexico	27	1,395	9	0
Total April	2,053	261,591	543	188
Total March	1,992	189,271	600	193
Difference	66	72,320	57	5

Summary of New Work

Field—	Rigs	Drg.	Ttl.
Eastern	136	367	503
Lima	9	54	63
Indiana	3	35	38
Central Ohio	29	47	76
Kentucky	14	164	178
Tennessee	0	12	12
Mississippi	3	8	11
Alabama	0	5	5
Georgia	1	3	4
Illinois	9	41	50
Kansas	103	356	459
Oklahoma	299	1,102	1,401
North Texas	168	859	1,027
East Central Texas	3	31	34
Arkansas	36	128	164
Louisiana	58	127	185
Gulf Coast	66	176	242
Southwest Texas	31	92	123
Wyoming	32	278	310
Montana	15	129	144
Colorado	19	103	122
Utah	3	31	34
New Mexico	15	137	152
Total April 30	1,052	4,285	5,337
Total March 31	790	3,616	4,406
Difference	262	669	931

Note—In the following report the Section, Township and Range are given first; then the farm, the owner, the serial number of the well and the initial production of the well. The rigs and wells drilling are set forth in similar manner. In lines where the Section, Township and Range are missing the wells are located in the Sections, Townships and Ranges which appear next above in the report.

OKLAHOMA FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Osage	69	5,103	17	4
Tulsa	25	631	11	3
Okmulgee	53	2,319	19	9
Seminole	12	2,670	3	1
Okfuskee	17	1,137	6	2
Hughes	9	12,325	4	0
Muskogee and Wagoner	21	239	8	5
Creek	64	9,150	14	3
Pawnee	25	742	7	0
Kay	14	1,163	4	1
Payne	10	5,056	0	2
Lincoln	22	4,105	2	0
Garfield	22	56,267	4	0
Stephens and Cotton	14	295	7	0
Grady	18	460	3	11
Carter	26	2,793	0	3
Miscellaneous	46	1,252	23	1
Total April	467	105,707	132	45
Total March	439	60,679	141	56
Difference	28	45,028	9	11

Summary of Rigs and Wells Drilling

County—	Rigs	Drg.	Ttl.
Osage	27	93	120
Tulsa	4	28	32
Okmulgee	21	67	88
Seminole	18	95	113
Okfuskee	12	55	67
Hughes	10	46	56
Muskogee and Wagoner	8	16	24
Creek	50	104	154
Pawnee	15	40	55
Kay	18	77	95
Payne	6	69	75
Lincoln	11	51	62
Noble	0	22	22
Garfield	29	94	123
Grant	2	15	17
Grady	12	21	33
Comanche	5	17	22
Stephens and Cotton	9	48	57
Jefferson	8	12	20
Pontotoc and Garvin	2	21	23
Carter	15	50	65
Miscellaneous	17	61	78
Total April	299	1,102	1,401
Total March	226	1,020	1,246
Difference	73	82	155

OSAGE COUNTY
WELLS COMPLETED

17-29-6e Tidal Osage Gas ... dry
15-29-10 I. T. I. Oil 24 ... 5
26-28-11 Owen Osage Oil 360 ... dry
2-27-5e Phillips Pet. 6 ... 100
Phillips Pet. 9 ... 75
Phillips Pet. 10 ... 125
26-26-8e Petroleum Drlg. Co. 17 ... gas
28-25-6e Phillips Pet. 1 ... dry
17-25-9e Foster, Davis & Landon 10 ... 35
36-25-11 Plymouth Pet. 4 ... 15
35-24-8e Sidwell et al 2 ... 100
Sidwell et al 16 ... dry
26-24-8e Foster, Davis & Landon 8 ... dry
17-23-12 Silurian Oil 48 ... 25
16-22-9e Amerada Pet. 18 ... gas
20-22-10 Winemiller et al 3 ... 10
33-22-10 Tidal Osage Oil 24 ... 12
5-22-11 Kewanee O. & G. 11 ... 207
11-21-10 Tidal Osage Oil 4 ... dry
14-21-10 Okla. Natl. Gas 710 ... gas
30-21-12 Elliott & Smith 23 ... 80
5-20-11 Pioneer Pet. 5 ... 50
6-20-12 Grimes & Gillespie 3 ... 10
29-20-12 Wilma Oil 4 ... 1500
Westland Oil 1-A ... 40
15-29-10 Keener Oil 7 ... 15
21-28-10 Owen Osage Oil 361 ... gas
29-25-8e The Texas Co. 6 ... 50
Lewis Oil 7 ... 110
12-23-8e Peters Pet. 8 ... 25
4-22-11 Kewanee C. & G. 1 ... 20
10-23-9e Phillips Pet. 6 ... 30
29-20-10 Echo Oil 1 ... gas
27-29-11 Beacon Oil 13 ... 5
2-27-5e Phillips Pet. 14 ... 600
24-24-8e Tidal Oil 4 ... 12
20-24-9e Tidal Osage Oil 2 ... 50
28-24-10 Peters Pet. 4 ... 15
Winona Oil 19 ... 15
25-23-10 Ross & Westerill 12 ... 15
23-22-10 Elm Oil 13 ... 30
23-21-8e Mason & Carter Bros. 7 ... 20
19-21-12 Tidal Oil 23 ... 5
30-21-12 Barnsdall Oil 20 ... dry
28-20-12 Continental Oil 14 ... 90
2-27-5e Skelly Oil 7 ... 150
26-27-5e Mid-Kansas Oil 10 ... 80
18-27-6e Kewanee O. & G. 14 ... 80
35-24-8e Sidwell et al 15 ... dry
27-21-10 Devonian & Tidal Oil 1 ... 20
28-29-9e Winona Oil 1 ... dry
33-28-11 Wah-Sha-She Oil 2 ... dry
34-28-11 Duffield & Howard 1 ... 10
14-26-8e Continental Protective Com. 2 ... dry
20-26-12 Kanupp et al 1 ... dry
21-25-6e Sinclair Oil 2 ... 15
28-25-6e Phillips Pet. 2 ... 27
29-25-8e Lewis Oil 8 ... 175
15-24-8e McCune, Wormser et al 5 ... dry
29-24-8e Continental Oil 4 ... 60
11-24-11 Barnsdall Oil 6 ... 5
33-24-12 Owen-Osage Oil 363 ... dry
2-23-11 Owen Osage Oil 364 ... dry
1-22-9e Sterling Oil 6 ... 30
23-22-11 Branstetter et al 1 ... 15
11-21-10 Okla. Natl. Gas 709 ... dry
4-20-11 Grimes & Elliott 1 ... dry
21-25-6e The Prairie O. & G. 4 ... 480
The Prairie O. & G. 5 ... 80
Wells completed ... 69
Production ... 5103
Dry ... 17
Gas ... 4
Gas production ... 24,400,000

TULSA COUNTY

4-19-10 Unallotted, O'Reilly et al 3 ... 15
24-19-12 Perryman, O'Brien et al 2 ... dry
Perryman, O'Brien et al 3 ... dry
33-18-14 Hackey, Sac & Fox 4 ... 70
36-17-12 Murray, Henry Oil 3 ... dry
4-16-13 Stewart, Pulaski Oil 4 ... 3
3-19-11 Page, Sand Springs Home 3 ... dry
17-19-11 Grayson, Pennok Oil 7 ... dry
20-19-11 Thomas, Pennok Oil et al 10 ... dry
4-16-13 Buck, Petroleum Co. 1 ... 2
16-16-14 Williams, W. Brennan 1-A ... dry
15-19-10 Island, Holmes et al 2 ... 10
34-19-11 Incoe, J. W. McCulloch 7 ... dry
3-18-12 Vance, S. E. Vance 17 ... gas
13-18-12 Ismail, W. C. Cates et al 3 ... dry
1-17-14 Berryhill, Frates 3 ... dry
4-16-13 Russell, Selby O. & G. 7 ... 1
28-18-14 Flippen, L. Green et al 1-A ... 100
6-17-13 Oswalt, J. H. Hilt et al 1-A ... 15
11-17-13 Owens, Holmes et al 1 ... 25
5-16-13 Bertholf, Thompson & Black 4 ... 265
23-19-10 Timothy, Holmes et al 1 ... gas
16-18-13 Rentie, B. S. & B. Oil 16 ... 70
16-18-14 Frank, L. Green et al 1 ... dry
23-20-14 Nichols, F. A. Haver 1 ... gas
Wells completed ... 25
Production ... 631
Dry ... 11
Gas ... 3
Gas production ... 8,250,000

OKMULGEE COUNTY

30-16-12 Houston, Carter Oil & Owens 1 ... dry
4-15-11 Gibson, Nowata O. & R. 4 ... 10
14-15-12 Moore, Mid-Cont. Pet. 6 ... gas
23-15-12 Porcher, Gray Oil et al 1 ... gas
21-14-12 Colbert, H. C. Detrick et al 1 ... dry
22-14-12 Havercamp, T. A. Johnson 4 ... 370
25-13-11 Lewis, J. A. Swindler & Sons 5 ... dry
29-13-11 Milroy, Wigton & Long 1 ... 125
17-11-12 Summers, Decius et al 1 ... gas
12-13-13 Alexander, Mid-Cont. Pet. 18 ... 10
30-13-13 Lee, R. G. Rapp, trustee 4 ... 10
15-13-14 Doyle, C. H. Lebow 12 ... 200
25-13-14 Scott, W. R. Sommerville 4-A ... 10
27-13-14 Hill, Clarion Oil 6 ... 10
24-16-12 Tiger, Okla. Natl. Gas 5 ... 65
3-15-11 Rorschach, Iron Mtn. Oil 1 ... 50
7-12-12 Wilson, Morton & Co. 6 ... 300
28-15-13 Brown, Tidal Oil 4 ... dry
21-15-14 Garnett, Jolly & Ogg 1 ... 75
23-15-14 Jefferson, Sinclair Oil 17 ... dry
24-14-14 Ragan, L. Selby 8 ... dry
11-14-14 Rentie, Papoose Oil 7 ... dry
Rentie, J. E. Wallace 2 ... dry
14-14-14 Colbert, Mechling 3 ... 7
35-14-14 Anderson, J. L. Selby 30 ... 15
29-13-14 Wiley, F. E. Cuseck 7 ... 35
13-11-13 Canard, Nicholson Corp. 2 ... gas
21-14-11 Kellough, G. Simmons et al 1 ... 40
5-11-12 Jackson, C. O. Buckles 15 ... 3
24-13-14 Johnson, Iron Mtn. Oil 15 ... dry
17-15-11 Gibson, Shaffer O. & R. 7 ... 840
5-11-12 Jackson, C. O. Buckles 16 ... 2
1-15-14 Charles, Independent O. & G. 11 ... dry
4-15-14 Beams, Transcontinental Oil et al 1 ... gas
21-13-14 Dunn, Cumberland Pet. 4 ... gas
23-13-15 McNack, O. Henson 1 ... dry
17-13-11 Brazeel, the Prairie O. & G. 2 ... dry
21-16-13 Bigpond, H. C. Detrick et al 1-A ... dry
3-15-11 Kelly, C. F. Noble 3 ... 20
4-15-11 Fife, Sheridan Oil 4 ... 35
18-14-12 Newton, G. & M. Oil 1 ... dry
36-14-12 Skelton, A. H. Haslett et al 1 ... gas
7-13-12 Grayson, H. G. Fair 4 ... dry
18-12-12 Clark, Independent O. & G. 2 ... dry
Clark, Independent O. & G. 3 ... dry
3-15-14 Rentie, W. B. Pine 1-A ... gas
1-14-14 Harris, Arksarben Oil 9 ... gas
11-14-14 Rentie, J. Wilmott et al 3 ... dry
14-14-14 Colbert, Mechling & Berling 4 ... 12
15-13-14 Doyle, Cal Cul Oil 3-A ... 40
16-13-15 Lovett, Helena Oil 4 ... 10
12-14-12 Gibson, the Prairie O. & G. 3 ... dry
33-12-12 Been, J. S. Cosden 6 ... 25
Wells completed ... 53
Production ... 2319
Dry ... 19
Gas ... 9
Gas production ... 51,100,000

SEMINOLE COUNTY

17-11-8e Stepney, Gypsy Oil 1 ... dry
24-9n-6e Dyer, I. T. I. Oil 1 ... 1160
14-8n-7e Jackson, T. B. Slick 2 ... 50
4-10-6e Madgett, Jarvis & Holm 1 ... dry
15-9n-6e Noble, Superior Oil 1-A ... 5
14-8n-7e Norvell, Magnolia Pet. 1 ... 196
6-7n-8e Gilstrap, Magnolia Pet. 1 ... gas
33-11-8e Williams, Carter & Pulaski 4 ... 45
15-8n-7e Main, the Prairie O. & G. 1 ... dry
17-9n-8e Johnson, Mid-Cont. Pet. 2 ... 25
25-8n-7e Ligon, Dixie Oil 3 ... 2,040
5-7n-8e Harjo, Magnolia Pet. 2 ... 4417
Harjo, Magnolia Pet. 3 ... 5132
Wells completed ... 12
Production ... 2670
Dry ... 3
Gas ... 1
Gas production ... 2,000,000

OKFUSKEE COUNTY

7-12-11 Simmons, J. R. Burns 4 ... dry
21-10-9e Tecumseh, Mid-Cont. Pet. 1 ... gas
16-10-11 Harjo, T. A. Johnson et al 1 ... gas
28-13-8e Hill, Dalton & Baker 1 ... dry
22-11-11 Grayson, Champlin O. & R. 5 ... 300
15-10-9e Beardon, Phillips Pet. 1 ... dry
3-12-11 Morgan, Barnsdall Oil 1 ... 444
13-12-11 Harjo, Amerada Pet. 12 ... 68
Sugar, Independent & Anglo-Tex 7-A ... 30
28-12-10 Johnson, Central Natl. Oil 1 ... 65
7-12-11 Simmons, J. R. Burns 7 ... 35
13-12-11 Sugar, Independent & Anglo-Tex 2-A ... dry
Sugar, Independent & Anglo-Tex 10-A ... 40
32-12-11 Carlolina, Josey Oil 2 ... 135
22-11-11 Guy, Champlin O. & R. 5 ... dry
24-11-11 Fields, Phillips Pet. 17 ... dry
36-10-9e Palmer, Amerada Pet. 7 ... 20
Wells completed ... 17
Production ... 1137
Dry ... 6
Gas ... 2
Gas production ... 45,000,000

HUGHES COUNTY

29-8n-9e Lowe, Kingwood Oil 1 ... 275
27-9n-9e Hill, J. W. McCullough 1 ... dry
18-8n-10 Irvine, Dixie Oil 4 ... 20
31-9n-10 Riley, Sanda Pet. 1 ... dry
5-7n-8e Harjo, Amerada Pet. 1 ... 6300
Harjo, Amerada Pet. 3 ... 5700
1-9n-9e Cain, Minnehoma Oil 4 ... dry
3-9n-11 Harjo, Tidal Osage Oil 1 ... 30
12-7n-9e Hawkins, J. W. McCullouch 1 ... dry
Wells completed ... 9
Production ... 12,325
Dry ... 4

MUSKOGEE AND WAGGONER COUNTIES

31-18-16 Woodward, A. E. Carder 1 ... dry
14-17-17 Grayson, L. L. Hiller 2 ... dry
10-18-16 Kelly, R. W. Talbot et al 1 ... gas
20-18-16 Hawkins, B. B. Wheeler et al 1 ... 5
29-18-16 Hawkins, D. T. Marr 1 ... 65
14-17-16 Atkins, C. L. McMahon 5 ... gas
33-15-15 Thompson, Brothers Oil 2 ... dry
13-19-16 Ponds, S. M. Green 1 ... gas
31-18-15 Johnson, H. C. Deems 4 ... gas
29-18-16 Hawkins, Hornacker et al 1 ... dry
25-17-16 White, Larsarskey et al 4 ... 15
29-17-16 Childers, Perry & Hartman 1 ... dry
19-17-17 Lewis, W. Sloman et al 1 ... dry
15-19-15 Lewis, Mays Bros. 1-A ... 20
6-16-17 Samuels, Mitchell Oil 1 ... gas
33-15-18 Garrett, C. M. Bradley 1 ... dry
10-19-15 Burgess, Mays Bros. 1-A ... 4
7-17-15 McIntosh, M. A. Lowe 2 ... dry
26-17-16 Drew, W. B. Pine 2 ... 50
30-17-17 Wilson, W. D. Egloff et al 5 ... 20
5-14-19 Gardner, C. M. Bradley et al 1 ... 60
Wells completed ... 21
Production ... 239
Dry ... 8
Gas ... 5
Gas production ... 9,850,000

CREEK COUNTY

14-17-8e Johnson, Atlantic Oil Prod. 7 ... 35
Fry, Alvard & West 3 ... 60
Fry, Alvard & West 5 ... 75
27-17-8e W. Allen, Barnsdall Oil 2 ... 30
25-15-8e Herrod, C. G. Tibbens 2 ... 15
2-14-8e Davy, J. W. Henry 3 ... 35
Ponds, Gypsy Oil 5 ... 70
21-18-9e Walker, J. A. Hull & Co. 1 ... gas
6-18-12 Gray, Gypsy Oil 14 ... 400
9-18-12 White, C. G. Tibbens 8 ... 15
24-17-10 Tahkaney, J. H. Wright 6 ... 175
11-17-11 Hayes, Terrelli et al 4 ... dry
32-16-9e Hamilton, N. Y. Okla. Oil 3 ... 110
30-15-9e Unallotted, C. G. Tibbens 2 ... 35
22-15-10 Clark, J. H. Rebold 2 ... dry
20-14-10 Scott, Donnelly et al 1 ... 75
18-18-7e Scott, Magnolia Pet. 5 ... 50
22-17-7e Fife, Tidal Oil 6 ... gas
29-16-8e Hawkins, Riverside Oil 1 ... dry
2-15-8e Henaha, Wilcox O. & G. 9 ... 120
1-14-8e Brown, C. G. Tibbens 1 ... dry
6-18-12 Gray, Gypsy Oil 17 ... 55
Gray, Gypsy Oil 18 ... 1680
19-17-10 Dickson, Tidal Oil 4 ... dry
17-17-11 Waccha, Shaffer O. & R. 4 ... 145
1-16-11 Anthis, Wilcox & Oswalt 3 ... dry
7-16-11 Steil, Chief Drlg. Co. et al 1 ... dry
12-16-11 Ricks, H. U. Bartlett 1 ... 10
12-15-8e Grayson, J. B. Grieves 2 ... dry
14-19-8e Miller, Devonian Oil 2 ... 350
14-18-8e Harjo, J. B. Chronic et al 1 ... dry
14-17-8e Freeman, Transcontinental Oil 3 ... 20
18-17-8e Toney, Roxana Pet. 1 ... 35
30-15-8e Helacoweney, Phillips Pet. 2 ... 5
10-19-9e Ford, C. L. McMahon 1 ... 15
10-18-11 Unallotted, Wells et al 1 ... 15
6-18-12 Sango, Sunray Oil et al 1-A ... 1500
Sango, Sunray Oil et al 2-A ... 2200
23-17-10 Kochaney, R. R. Kirshner 1-A ... 310
Dawson, J. H. Wright 9 ... 45
5-16-12 Gillette, Henry Oil et al 2 ... gas
30-15-9e Unallotted, C. G. Tibbens 23 ... 720
Unallotted, C. G. Tibbens 26 ... 15
31-14-9e Wright, Transcontinental Oil 1 ... dry
32-14-10 Walker, Mid-Cont. Pet. 4 ... 150
32-17-8e Washington, The Prairie O. & G. 9 ... 35
3-17-9e Hope "A", The Prairie O. & G. 1 ... 75
13-19-8e Ross, Gled Oil 2 ... 175
16-17-7e Dacon, Sinclair Oil 13 ... 10
22-17-8e Johnson, Savoy Oil 3 ... 25
10-18-11 Unallotted, Wells & Thornton 1-A ... 35
19-17-10 Dickson, Independent O. & G. 1 ... 40
24-17-10 Dawson, J. H. Wright 10 ... 10
3-17-11 Fife, S. J. Smith 1 ... 10
28-17-11 Watkins, I. Simmons 1-A ... 8
Barnett, Transcontinental Oil 2 ... 22
22-17-9e Self "A", The Prairie O. & G. 6 ... 20
12-18-8e King, Pure Oil 1 ... gas
2-14-8e Ponds, Gypsy Oil 6 ... 40
12-14-8e Bruner, C. G. Tibbens 7 ... 75
1-18-11 McGuire, Gypsy Oil 18 ... dry
5-16-12 Strip, Spears et al 1 ... dry
7-14-9e Renhart, Phillips Pet. 1 ... dry
32-14-10 Walker, Empire G. & F. 2 ... dry
Wells completed ... 64
Production ... 9150
Dry ... 14
Gas ... 3
Gas production ... 17,500,000

PAWNEE COUNTY

11-20-7e School land, Block & Carnahan 16 ... 40
10-20-8e McNeal, The Prairie O. & G. 6 ... 8
15-20-6e Burton, The Prairie O. & G. 1 ... 5
21-20-6e Lesher, Magnolia Pet. 2 ... 100
1-20-7e Mullendore, Gypsy Oil 9 ... 10
16-20-7e School land, Mid Cont. Pet. 16 ... 40
School land, Mid Cont. Pet. 17 ... 25
5-20-8e Lee, Sunray Oil 1-A ... dry
6-20-8e Cotton, Black et al 1-A ... 25
21-20-8e Webb, McNamara & West 1 ... dry
23-20-8e Van Eman, Selby O. & G. 4 ... 70
5-22-3e Altaffer, Magnolia Pet. 2 ... 10
4-23-5e McCullough, Mid-Kansas Oil 2 ... 140
3-22-5e Ackerman, E. B. Rich et al 1 ... dry
22-20-6e Scott, Josey Oil 1 ... 45
35-21-8e Norman, Gypsy Oil 7 ... 4
Wells-Jones, The Prairie Co. 21 ... dry
7-20-8e Childers, Minnehoma Oil 4 ... 35
28-20-9e Stoneman, Shaffer O. & R. 3 ... 25
10-20-5e Mechler, The Prairie O. & G. 1 ... dry
31-21-8e Hayden, Adamson, C. O. & G. Co. ... dry
Havercamp, J. B. Grieves 2 ... 75
8-20-6e Privett, Magnolia Pet. 3 ... 50
3-20-8e Arnold, Tidal Oil 3 ... 35
27-23-3e Donahue, Magnolia Pet. 1-A ... dry
Wells completed ... 25
Production ... 742
Dry ... 7

KAY COUNTY

21-29-1e Duncan, Comar Oil 11 ... 147
22-25-2w Siler, Twin State Oil 5 ... dry
20-29-1w Day, Comar Oil 1 ... 93
21-29-1w Priboth, Comar Oil 10 ... 56
4-27-1w Case, Polling & Denny 3 ... gas
13-29-2w Olson, Marland Oil 1 ... 252
21-29-1w Duncan, Comar Oil 6 ... 40
4-27-1w Kelly, Arkansas Fuel Oil Co. 3 ... 265
5-27-1w Savage, Polling & Denny 1 ... 100
7-27-1w Bailey, Cistor Dev. 1 ... dry
9-27-1w Geiger, Blackwell O. & G. 5 ... 160
10-27-1w Moore, Black Gold Oil 2 ... 50
7-26-1w Kaney, Blackwell O. & G. 1 ... dry
22-27-4e O'Haver et al 1 ... dry
Wells completed ... 14
Production ... 1165
Dry ... 4
Gas ... 1
Gas production ... 30,000,000

PAYNE COUNTY

22-18-3e Nelson, J. A. Hull Oil 1 ... 818
23-18-3e Givens, Shaffer O. & R. 1 ... 1448
Halev, Mulberry Oil 3 ... 800
Haley, Amerada Pet. 4 ... 235
2-18-6e Lorett, Baluner & Hartley 1-A ... 15
23-18-3e Boyles, Deep Rock O. & G. 8 ... 1550
6-17-4e Strip, Mulberry Oil 1 ... gas
23-18-3e Posey, Deep Rock O. & G. 1 ... 75
8-19-5e Walker, Magnolia Pet. 1-B ... 115
5-17-4e Flint, Mulberry Oil 3 ... gas
Wells completed ... 10
Production ... 5056
Gas ... 2
Gas production ... 27,000,000

LINCOLN COUNTY

34-15-5e M. & F. Sproleder, Magnolia Pet. 7 ... 85
2-14-5e Hopkins "B", The Texas company 5 ... 475
Hopkins "B", The Texas company 8 ... 725
3-14-5e Bagwell, Selby & Southwestern 12 ... 100
4-14-5e Strough, The Texas company 2 ... 350
35-15-5e Sproleder, Magnolia Pet. 1 ... 45
6-15-6e Earp, Carter Oil 3 ... 48
2-14-5e Hopkins, Skelly Oil 8 ... 120
3-14-5e Belless, Amerada Pet. 7 ... 25
8-14-5e Martin, Magnolia Pet. 1 ... 19
33-17-6e Mossawat, Independent O. & G. 1 ... dry
3-14-5e Belless, Magnolia Pet. 4 ... 213
4-14-5e Strough, Pure Oil 1 ... 207
10-14-5e Chapman, Magnolia Pet. 1 ... 200
11-14-5e Caves, Gypsy Oil 11 ... 300
Roberson, Southwestern Pet. 3 ... 322
3-14-5e Stout, The Prairie O. & G. 19 ... 100
35-15-5e Caves, Gypsy Oil 9 ... 275
8-15-6e Earp, Mid-Cont. Pet. 1 ... 10
2-14-5e Hopkins, The Texas company 1-A ... 350
19-17-3e Sutton, Roy Willis et al 1 ... dry
10-14-5e Patterson, Phillips Pet. 5 ... 135
Wells completed ... 22
Production ... 4105
Dry ... 2

GARFIELD COUNTY

18-22-3w Schroeder, Roxana Pet. 6-L..4784
Hartley, Sinclair O. & G. 27 25,867
1-22-4w Seamans, Enid 80 Oil 4 ..... dry
13-22-4w School land, Mid-Cont. Pet. & Marland 40 288
Walker (North), Sinclair O. & G. 30 6608
Walker (North), Sinclair O. & G. 34 3220
Walker (North), Sinclair O. & G. 35 535
15-22-4w Searcy, Magnolia Pet. 3 ..... dry
7-22-3w Marley, Chas. Knox 6 ..... dry
19-22-3w Crews, Crews Heirs Oil 18 ... dry
Kisner, (West), Sinclair O. & G. 25 25
31-22-3w Morrison, Sinclair O. & G. 10..15
McLean, Imo Oil 6 35
13-22-4w Walker (North), Sinclair Oil 37 760
18-22-3w Schroeder, Roxana Pet. 1-L 4568
13-22-4w Walker (North), Sinclair Oil 29 116
Walker (North), Sinclair Oil 33 2192
Walker (North), Sinclair Oil 36 200
18-22-3w Schroeder, Roxana Pet. 2 2386
Schroeder, Roxana Pet. 15 270
Schroeder, Roxana Pet. 25 90
Schroeder, Roxana Pet. 5-H ..4318

Wells completed 22
Production 56,267
Dry 4

STEPHENS & COTTON COUNTIES

34-1s-5w McClanahan, Skelly Oil 1 25
25-1s-9w Russell, Magnolia Pet. 5 10
4-2s-8w Lester, Muse et al 1-A ..... dry
2-3s-6w Florence, Gibbons, Johnson & Carter 1 ..... dry
25-2n-9w Turner, Flowers et al 1 ..... dry
2-1n-5w Payne, Dresser et al 3 ..... dry
8-2s-6w Armstrong, Gant et al 1 ..... dry
2-2n-5w Knox-Sims, Carter Oil 2 15
Garvin-Sims, Carter Oil 6.... 200
26-1s-9w Branch, Garvin Drlg. Co. 1 . dry
20-1s-8w Brittian, Malernee & Dunlap 7 30
35-1s-5w Hanson, Brannon et al 4 ..... dry
11-2s-8w Nigh, Pace et al 1 10
12-2s-8w Fobb, Magnolia Pet. 2 5

Wells completed 14
Production 295
Dry 7

GRADY COUNTY

14-4n-8w Pendley, Magnolia Pet. 1 .... gas
35-3n-5w Abernathy, Carter Oil 1 275
Simms, Clark, Cowden & Melton Brothers 2 10
23-5n-8w Farwell, Magnolia 2 ..... gas
24-5n-8w Smith, Noble & Westervelt 2 gas
25-5n-8w Reed, Nichols Oil & Drlg. Co. 2-A ..... gas
35-5n-8w Duke, Skelly Oil 2 ..... gas
27-3n-5w Cochran, Magnolia 1 25
22-5n-8w Pooler, The Prairie O. & G. 3 gas
23-5n-8w Edmundson, Oklahoma Natl. Gas 3 ..... gas
35-5n-8w Smith, Magnolia Pet. 5 ..... gas
15-5n-8w Goldsmith, Manderville et al 1 gas
8-5n-6w Thomas, Becker-Reed Oil 1 .. dry
23-5n-8w Edmundson, Skelly Oil 3 .... gas
Sanford, American Drlg. Co. 6 gas
11-3n-6w Shortles, Pauline, Clark & Cowden 1 ..... dry
8-3n-5w Horton, Carter Oil 1 150
35-3n-5w Lindsey, Clark, Cowden et al 2 dry

Wells completed 18
Production 460
Dry 3
Gas 11
Gas production 268,000,000

CARTER COUNTY

34-1s-3w Hernstadt, Gilmer 1 165
22-2s-3w Carpenter, Humble O. & R. 7.. 180
23-2s-3w Williams, Magnolia Pet. 7 200
15-2s-2w Cox, Magnolia Pet. 1 50
9-4s-2w Hewitt-Walker, Humble O. & R. 20 15
34-1s-3w Newstadt, Magnolia Pet. 2 65
22-2s-3w Kimbrell, Carter Oil 2 50
23-2s-3w Williams, Magnolia Pet. 3 135
Lohman, Magnolia Pet. 9 .... gas
28-5s-1e Fish, Amerada Pet. 16 50
20-5s-1e Baptiste, Amerada Pet. 22.... 20
19-1s-3w Eason, Atlantic O. P. 1 ..... gas
22-2s-3w Carpenter, Twin State Oil 3.. 300
7-2s-2w Pierce, Coline Oil 3 65
Higgins, Caline Oil 4 ..... gas
16-2s-2w Wilson, Magnolia Pet. 1 54
28-5s-1e Westheimer, Amerada Pet. 13.. 75
19-1s-3w Hardin, Magnolia Pet. 5 40
34-1s-3w Cruce, Schermerhorn Oil 2.... 185
6-2s-2w Higgins, Roxana Pet. 1 27
7-2s-2w Caughman, Roxana Pet. 3 210
Caughman, Roxana Pet. 4 60
8-2s-2w Pierce, Carter Oil 1 115
16-2s-2w Cox, Magnolia Pet. 1 30
16-5s-1e Ward, Southern Pet. 8 12
20-5s-1e Farve, Amerada Pet. 25 80
Wells completed 26

Production 2793
Gas 3
Gas production 85,000,000

MISCELLANEOUS COUNTIES

Noble County—

36-24-1e Warrior, Gypsy Oil 1 ..... dry
15-21-2w Sams, Magnolia Pet. & Bu-Vi-Bar Pet. 2 40

Pottawatomie County—

24-8s-4e Stoner, Maude Oil Prod. 1.... dry
3-11-6e Allenbaugh, The Texas company 1 ..... dry
13-7n-4e Vienx, Magnolia Pet. 1 23

Jefferson County—

2-7s-6w Hrout, Staley & Wynn 1 ..... dry
36-5s-4w Woodwarth, Godley Oil 1 .... dry
27-6s-6w Ryan, Muse & Robertson 1... dry
33-6s-5w Jones, Carter Oil 4 400
28-6s-5w James, Pure Oil 1 ..... dry
33-6s-5w Seay, Gypsy Oil 19 125
Seay, Gypsy Oil 18 240
Seay, Gypsy Oil 16 500
Indian, A. C. Brown 3 ..... dry

Garvin County—

16-1n-3w Harris, Magnolia Pet. 9 ..... gas
Bailey, T. P. C. & O. Co. 1-A dry
17-1n-3w Deryden, The Texas company 11 65
16-1n-3w Butts, T. P. C. & O. Co. 3 12
17-1n-3w Deryden, Mid-Cont. Pet. 2 .. 50

Atoka County—

28-2s-9e Underwood, Wapanucka Dev. 1 dry

Marshall County—

10-5s-5e Griffen, W. E. Ramsey 1..... dry
24-5s-5e Arbuckle, United 8 Oil 4 .... dry
19-5s-6e Neff, United 8 Oil 3 ..... dry

McIntosh County—

4-10-13 Greenwood, G. F. Haun 1. ... dry
17-10-14 Lynch, Gypsy Oil 2 ..... dry

Commanche County—

24-2n-10w Schultz, Cardinal Oil 1 35
27-2n-10w Blair, J. T. Howard 1 ..... dry
30-2n-9w Hardy, Magnolia Pet. 1 34
28-3n-9w Markle, Day Oil 1 ..... dry
30-2n-9w Indian, Continental Oil 1 10

Pittsburg County—

29-6n-13e Townsend, E. T. Richards 1 .. dry

Pontotoc County—

34-5n-6e Nelson, Boles & Smith 1 20

Grant County—

26-27-4w Bohan, Wilson & Gloyd 1 ... dry

Washington County—

18-26-14 Bunch, Midland Oil 1 ..... dry
18-28-13 Flint, D. M. Tyler 1 ..... dry
35-25-13 Long, C. B. Farzuharson 3 5
17-29-14 Fee, E. L. & A. J. Canary 9.... 25
30-18-24 Cato, Phillips Pet. 14 3

Rogers County—

9-21-17 Dawson, Weller & Qualls 1.... 35
31-23-17 Andrews, Foyl O. & G. 1 ..... dry
24-22-15 Hanes, Cronable & Hess 1 .... dry
18-20-15 Martin, Hoover et al 1 6

Nowata County—

19-26-15 Adair, Echo Oil et al 10..... 5
35-26-15 Groves, V. R. Bays 1 9
10-25-16 Parish, J. & C. P. Shertzer 17 5
7-26-17 Fee, H. W. Reid 16 5

Wells completed 46
Production 1252
Dry 23
Gas 1
Gas production 11,500,000

OSAGE COUNTY

Rigs

27-28-6e Laurel O. & G. 1.
1-27-6e Phillips Pet. 16.
17-27-6e Peters Pet. Co. 4.
9-26-6e Carter Oil Co. 9.
16-26-6e Carter Oil Co. 17.
21-26-6e Lewis Oil Co. 3, 4.
22-26-6e Mid-Kansas Oil 1, 3.
31-26-8e New England O. & P. L. 1.
32-26-12 Skelton & Moore 9.
36-25-5e Gypsy Oil 1.
21-25-6e Sinclair Oil 3.
28-25-6e Phillips Pet 3.
34-25-11 Devonian Oil 14.
24-24-8e Tidal Oil 6.
20-24-9e Tidal Oil 3.
12-23-8e Peters Pet. 9.
36-22-8e Mid-Kansas Oil 1.
35-22-8e Skelly-Moore 1.
34-22-9e Moore et al 1.
4-22-11 Kewanee Oil 3.
11-21-7e Gypsy Oil 1.
18-21-10 Cohen & Bozo 1.
19-21-12 Kewanee Oil 9.
2-20-10 New England O. & P. 1.
21-25-6e The Prairie O. & G. 7.

Wells Drilling

15-29-9e Wah-Sha-She Oil 52.
15-29-10 Keener O. & G. 8, 9.
24-29-10 Berlin et al 10.
25-29-10 I. T. I. O. Co. 1.
35-29-11 Osage Dev. 40.
36-29-11 A. D. Simon 6.
1-27-5e Phillips Pet. 13.
2-27-5e Phillips Pet. 13, 4.
Skelly Oil 8.
12-27-5e Phillips Pet. 1, 2, 3, 4, 16.
7-27-6e Phillips Pet. 1, 2, 3, 4, 5, 9, 13.
Phillips Pet. 4.
1-27-7e Tidal-Osage 2.
7-27-11 Owen Osage Oil 362.
20-26-6e Carter Oil 10, 15, 16.
21-26-6e Phillips Pet. 13, 14, 15, 16.
Lewis Oil 1, 2.
22-26-6e Mid-Kansas Oil 2, 4.
1-26-7e Morton et al 1.
28-25-6e I. T. I. O. Co. 1.
29-25-8e The Texas Company 1.
Lewis Oil Co. 9.
31-25-8e A. G. Oliphant et al 2.
19-25-11 Harland Oil 82.
5-25-12 Arthur Oil 24.
29-25-12 Titus et al 1.
6-24-8e Osage Oil 1.
13-24-8e The Texas Company 1.
24-24-8e Tidal Oil 5.
26-24-8e Carter Oil 3.
29-24-8e Earnest McCarthy 1.
29-24-9e Continental & Prairie 6.
32-24-9e Peters Pet. 5.
1-23-8e Tidal-Osage Oil 1.
12-23-8e Continental Oil 1.
8-23-10 Adium et al 2.
16-23-10 Mid-Continent Pet. 1.
16-22-9e Amerada Pet. 19.
33-22-10 Tidal-Osage Oil 26.
5-22-11 Kewanee Oil 12.
28-22-12 Kanupp et al 1.
2-21-8e Simmons et al 2.
Skelly & Moore 7.
11-21-9e Moore et al 7.
18-21-9e Barnsdall Oil Co. 1.
24-21-9e Devonian Oil 1.
10-21-10 Mid-Kansas Oil 1.
33-21-10 T. K. Smith 1.
7-21-11 Titus & Norris 4.
17-21-12 Kewanee Oil 5.
22-21-12 Commercial Drilling Co. 1.
31-21-12 Gillespie & Grimes 7.
14-20-10 Sand Springs Home 1.
22-20-10 Sand Springs Home 92.
29-20-10 Breene & Holm 1.
5-20-11 Pioneer Pet. 6.
13-20-11 Sand Springs Home 1.
4-20-12 Barnsdall Oil 17.
20-20-12 Devonian Oil 9.
22-20-12 Savoy Oil 8.
29-20-12 Westland Oil 2-A.
Winona Oil 5, 6.

Shut Down

1-26-9e Ike Johnson 1.
32-26-12 Skelton & Moore 9.
21-25-6e Sinclair Oil 1, 3.
7-25-8e John L. Bird 1.
28-24-8e Axelrod et al 2.
5-23-9e Continental & Prairie 2.
33-22-10 Tidal-Osage Oil 25.
7-21-9e Mitchell et al 1.
11-21-10 Mid-Kansas Oil 6.
19-21-10 Swoverland et al 3.
15-21-12 Titus & Norris 6.
13-20-10 L. C. Hivick 1.
Rigs, 27; wells drilling, 95; total, 122.

TULSA COUNTY

Rigs

4-19-10 Tuckobotche, Gledden Oil 1.
25-18-14 Island, Elien Oil 1-A.
5-17-14 Hodge, Albo Oil 1.
4-16-13 Stewart, Kewanee Oil 16.

Wells Drilling

15-19-10 Beaver, Crown Central Pet. 1.
23-19-10 Timothy, Holmes et al 2.
Unallotted, Holmes et al 1.
17-19-11 Smith, Hutt & Hutt 6.
22-19-11 Baughman, Holmes et al 2.
36-19-11 Wicey, Regal Oil 7.
30-19-12 Brown, Underwood et al 4.
31-19-12 Kieffe, Sunray Oil 1-A.
34-19-12 Mackey, Suppees et al 2-W.
9-19-14 Herrod, Thermal Oil 1-A.
16-18-13 Rentie, B. S. & B. Oil 17.
33-18-13 Brister, A. C. Woody et al 1-A.
18-18-14 Burgess, Edwards et al 1.
5-17-13 Porter, Ed Brady 1.
36-17-13 Montgomery, Newbrough & Hagen 1.
8-17-14 Hodge, Pataula Pet. 1.
4-16-13 Russell, Selby O. & G. 8.
Payne, The Prairie O. & G. 4.
35-22-12 Waldon, The Prairie O. & G. 4.

Shut Down

28-19-11 Fulsom, P. W. Fusselman 1.
4-19-12 Strip, J. C. King 1.
6-18-13 Davis, T. Henderson et al 1.
16-18-13 Rentie, L. C. Hivick 3.
24-17-12 Tingle, Craig et al 1.
27-17-14 Clinton, Sparks et al 1.
3-16-12 Sanderson, S. W. Anthony 2.
13-16-12 Unallotted, Winemiller et al 1.
4-16-13 Buck, Petroleum Co. 13.
Rigs, 4; wells drilling, 28; total, 32.

OKMULGEE COUNTY

Rigs

24-16-12 Tiger, Devonian Oil 6.
27-16-12 Hosking, Independent O. & G. 15.
35-16-12 Staley, W. B. Pine 2.
29-16-13 Stanley, J. W. McCullough 1.
21-16-14 Rowe, Atlas Oil 3.
12-15-12 Gray, Western Central Oil 1.
24-15-12 Blair, C. E. Campbell 1-A.
35-15-12 Clanch, W. E. Hammond 1-A.
3-14-12 Stake, W. C. Newman et al 1.
4-14-12 Farr, W. T. Campbell 1.
21-14-12 Arbitt, Kingwood Oil 2.
25-13-11 Lewis, J. A. Swindler & Sons 6.
28-13-11 Jones, The Texas Company 1.
29-13-11 Chittim, Wighton & Long 2-A.
7-12-12 Turner, Morton & Co. 3.
32-11-12 Ashbury, Colorado O. & G. 2.
33-11-12 Corbray, W. L. Barclay 1.
7-15-13 Wisener, Devonian Oil 14.
19-14-13 Berryhill, J. W. McCulloch Corp. 9.
20-13-14 Doyle, Cumberland Pet. 11.
31-11-13 Han, G. V. Luttes 1.

Wells Drilling

25-13-11 Tobler, The Prairie O. & G. 2.
19-16-13 Grant, Leonard Pet. 3.
34-16-13 Anderson, Hutchinson & Speary 2, 3.
29-16-14 Tecumseh, Anglo-Tex & Wangerine 1.
22-15-12 Kimble, Noble Oil 1.
34-15-12 Nubble, J. H. Deaner 1.
35-15-12 Cornelius, Darby Pet. et al 2.
7-14-11 Farmer, W. E. Holmes Oil 1.
20-14-11 Sizemore, Evans Daw et al 1.
23-14-11 Crossland, W. J. Sherry & Carter Oil 1-A.
35-14-11 Fisher, Crown Central Pet. 6.
14-14-12 Denson, Gray Oil 1-A.
17-14-12 Kimble, Kingwood Oil 1.
22-14-12 Huckaby, Sinclair Oil 1.
25-14-12 Kanard, Hazlett & Campbell et al 1.
Burton, W. B. Pine et al 2.
34-14-12 Unallotted, G. A. Gifford 1.
3-13-11 Anderson, Vincent et al 1.
14-13-11 Strip, Gibson & Zahniser et al 1.
22-13-11 Hickman, J. C. Smith 7.
29-13-11 Chittim, Wigton & Long 1-A.
Brown, J. H. Rebold 1.
32-13-11 Thomas, Denver P. & R. 6.
8-13-12 Morton, H. C. Marcey 5.
32-13-12 Unallotted, Amerada et al 2.
7-12-12 Wilson, Independent O. & G. 4.
31-12-12 Rentie, Simms Oil 15.
32-12-12 Tunnelly, Galligan & Greenwald 1-A.
7-11-12 Hawkins, J. C. French et al 3.
17-11-12 Summers, M. C. French 4.
18-11-12 Fish, F. L. Dunn 1-A.
32-11-12 Ashbury, Webb 1.
7-15-13 Fields, Devonian Oil 8.
Wisner, Devonian Oil 13.
18-15-13 Doyle, W. B. Pine 8.
10-15-14 Sella, W. B. Pine 1.
16-15-14 Alexander, Jolly & Ogg 1.
21-15-14 Osborn, Jolly & Ogg 1-A.
Garnett, The Texas Company 11.
Osborn, J. L. Selby 1-A.
32-14-13 Gibson, J. H. Gardner 2.
11-14-14 Rentie, Papoose Oil 8.
13-14-14 Rentie, Elm Oil 9.
16-14-14 Colbert, F. D. Misener 15.
20-13-13 Hargraves, M. P. Evans et al 1.
15-13-14 Doyle, Simms Oil 13, 14, 15.
27-13-14 Hill, A. Shelton 1.
9-13-15 Freeman, E. J. Lambert 5.
9-13-15 King, W. R. Summerville 1.
11-12-13 Lewis, W. B. Pine 2.
6-12-14 Griffen, Kingwood Oil 5.

Shut Down

20-16-12 Fee, Crider 1.
34-16-14 Bruner, Harsha & Delaney 1.
24-16-14 Lowery, E. J. Lambert 1.
20-15-12 Adams, D. D. Mickelson 6.
4-12-12 Tiger, Vierson et al 1.
18-12-12 Kanard, Carter Oil 2.
3-11-12 Calloway, B. Martin et al 1.
18-15-13 Doyle, Page Brothers et al 1.
7-15-14 Brown, E. B. Grubbs 1.
19-16-14 Harrison, A. W. Cline 1.
35-14-13 Checote, F. R. Smith 1.
18-14-15 Rentie, C. Smith 9.
13-11-13 Canard, B. Morgan 3.
Rigs, 21; wells drilling, 67; total, 88.

SEMINOLE COUNTY

Rigs

4-10-8e Yarbow, Sinclair Oil 9.
10-9n-5e Johnson, Magnolia Pet. 2.
24-9n-6e Carter, Carter Oil 1.
Pahardy, Tidal-Osage Oil 2.
Pahardy, Mid-Continent Pet. 1.
25-9n-6e Nobles, Empire G. & F. 1.
20-9n-7e Ripper, Magnolia Pet. 1.
7-9n-8e Cobb, Independent & Jarvis & Holm 2.
8-9n-8e Buckner, Jarvis, Holm & Atlantic 1.
18-9n-8e W. Jefferson, Shaffer O. & R. 4.
32-8n-8e Parker, Magnolia Pet. 1.
1-7n-7e Sam, Wood & Hill 1.
5-7n-8e Simon, Independent & Atlantic 3.
Harjo, Magnolia Pet. 10, 11.
6-7n-8e Hawkins, Magnolia Pet. 2.
Carolina, Homaokla Oil 5, 6.
Dindy, Superior Oil 1.

Wells Drilling

14-8n-7e Porter, The Prairie O. & G. 1.
28-11-8e Williams, The Prairie O. & G. 1.
10-11-8e Davis, Transcontinental Oil 1.
28-11-8e Williams, Continental Oil 3.
Williams, Gypsy Oil 1.
33-11-8e Pierce, Mutual & Continental 4.
34-11-8e Hill, McMann & Magnolia 6.
33-10-6e Davis, F. J. Seabright 1.
5-10-8e Williams, Gypsy Oil 3.
Sampson, Gypsy Oil 5.
10-9n-5e Brown, The Texas Company 1.
Johnson, Magnolia Pet. 1.
10-9n-5e Ingram, Independent O. & G. 1.
Ingram, Barnsdall Oil 1.
10-9n-6e Noble, Superior Oil 1.
15-9n-6e Johnson, Gypsy et al 1.
Noble, Tidal-Osage Oil 1.
24-9n-6e Carter, Gypsy Oil 1.
Dyer, I. T. I. Oil 2, 8.
Carter, I. T. I. Oil 1, 2, 8.
Dyer, Amerada Pet. 1.
Pahardy, Tidal-Osage Oil 1.
Carter, Barnsdall Oil 1, 2.
26-9n-6e Fixico, Independent & Tidal-Osage Oil 1.
15-9n-7e Jonah, Pure Oil 1.
17-9n-7e Bull, Sinclair Oil 1.
7-9n-8e Jefferson, Plover Drilling Co. 2.
Cobb, Independent & Jarvis & Holm 1.
Hetty Cobb, Independent & Jarvis & Holm 2.
8-9n-8e Cobb, Independent O. & G. 2.
Alexander, T. B. Slick 1.
Bethel, Twin State Oil 2.
Buckner, Phillips Pet. 2.
17-9n-8e Aldridge, Roxana Pet. 1.
18-9n-8e Willmott, Mid-Continent Pet. 1.
Island, Oklavania Oil 1.
Jefferson, Gypsy Oil 1.
Peter, Southwestern Pet. 2.
Jefferson, Shaffer O. & R. 2, 3.
15-8n-6e Ida, I. T. I. Oil 1.
31-8n-6e Pullatka, Superior Oil 1.
14-8n-7e Davis, Gypsy Oil 1.
14-8n-7e Carolina, Magnolia Pet. 4.
Jackson, T. B. Slick 3, 4.
23-8n-7e Walker, Magnolia Pet. 1.
Hanning, Magnolia Pet. 2.
Johnson, Mid-Continent Pet. 1.
25-8n-7e Logan, Dixie Oil 1.
29-8n-8e Walker, Independent & Sinclair 3.
Walker, Magnolia Pet. 3.
30-8n-8e Douglas, W. R. Ramsey 1.
31-8n-8e Salinda, W. R. Ramsey 1.
31-8n-8e Sampson, W. R. Ramsey 2.
Amos, W. R. Ramsey 2.
Amos, W. R. Ramsey 5.
32-8n-8e Parker, Magnolia Pet. 2.
Frans, Magnolia Pet. 5.
9-7n-6e Litka, I. T. I. Oil 1.
22-7n-7e Jackson, Magnolia Pet. 1.
5-7n-8e Simon, Independent & Atlantic 1, 3.
6-7n-8e Davis, Magnolia Pet. & Atlantic 3, 4.
6-7n-8e Davis, Magnolia Pet. & Atlantic 3, 4.
Gilstrap, Magnolia Pet. 3.
Hawkins, Magnolia Pet. 1.
Carolina, Homaokla Oil 3, 4, 1.
Knight "A", Dixie Oil 1, 2, 4.
Hawkins, P. & R. Corp. 1.
7-7n-8e McIntosh, Atlantic O. P. Co. et al 1.
33-6n-6e Christy, Palmetto Oil 1.
24-5n-5e Nitley, Riverside Oil & Kinney 1.

Shut Down

1-9n-5e Sanjo, F. J. Searight 1.
15-8n-7e Carolina, Magnolia Pet. 3.
3-7n-6e Litka, Empire G. & F. 1.
6-7n-8e Hawkins, Buttram et al 1.
25-6n-6e Minton, T. B. Slick 1.
6-6n-8e Winey, R. F. Garland & Co. 1.
9-8n-8e Miller, T. Atkins et al 1.
30-8n-8e Bowlegs, Gardner Pet. 1.
Rigs, 19; wells drilling, 95; total, 114.

OKFUSKEE COUNTY

Rigs

3-12-11 Morgan, J. L. McMahon 1.
10-12-11 Randall, Barnsdall Oil 2.
Randall, Phillips Pet 1.
27-12-11 Holmes, Hartman 1.
32-12-11 Hulsey, Josey Oil 3.
33-12-11 McCoy, Josey Oil 14.
Fields, Josey Oil 1.
35-11-9e Severs, E. L. Robinson 1.
4-11-10 Stidham, Moose & Daniels 1.
14-13-9e Callahan, Darby Pet. 3.
17-10-9e Walker, Minnehoma Oil 1.
21-10-9e Tecumseh, Kingwood Oil 1.

Wells Drilling

35-11-9e Alexander, The Prairie O. & G. 1.
30-11-10 Groves, The Prairie O. & G. 1.
23-13-7e Byrd, Sinclair Oil 1.
11-13-8e Taylor, Mal De Mar Oil 1.
17-12-7e Hennechuchee, Mid-Kansas Oil 1-A.
18-12-8e Bear, Dalton & Baker 1.
21-13-10 Coon, Johnson & Ashe & Atlantic 1.
1-12-9e Jones, Blakely O. & G. 1.
17-12-10 Harrison, Amerada Pet. 2.
3-12-11 Grayson, J. J. Deaner 2.
Morgan, Barnsdall Oil 2.
10-12-11 Randall, Barnsdall Oil 1.
13-12-11 Canare, Central Natl. Oil 3.
Sugar, Independent & Anglo-Tex Oil 11-A, 1-B, 6.
Harjo, Amerada Pet. 13.
Looney, J. K. Leard 3.
15-12-11 Hill, Independent O. & G. 2-A.
16-12-11 Thomas, Windsor Oil 1.
22-12-11 Holmes, Hartman & Mann 1.
32-12-11 Fields, Josey Oil 2-A.
33-12-11 McCoy, Josey Oil 1, 4, 11, 10, 12, 14.
Fields, Josey Oil 4.
35-11-9e Wind, Gilcrease Oil 1.
13-11-11 Holmes, Independent O. & G. 14.
22-11-11 Grayson, Champlin O. & R. 6.
Holmes, Champlin O. & R. 8.
23-11-11 Lekowskie, Frank Havel 1.
30-11-11 Holmes, Riverland Oil 1.
1-11-8e Harris, Wilcox O. & G. 1.
33-10-9e Barnett, Arkansas Ful Oil 2.
26-10-10 Butler, Schrock & Jameson 1.
1-10-11 Robinson, T. A. Johnson & Umburn 1.
11-10-11 Hill, Lou Umburn 1.
18-10-11 Alberty, Amerada, Morgan & Flynn 1.
Simmer, Amerada Pet. 1.
2-10-12 Goober, W. C. Newman 1.

Shut Down

14-12-8e Isaac, Western State Oil 1.
3-12-10 Hivem, Alex Bays et al 1.
8-12-10 Yarhola, Blakely et al 1.
23-12-10 Harjo, Blakely et al 1.
13-12-11 Harjo, Amerada Pet. 14.
22-12-11 Barnett, Hartman & Mann 7.
2-11-11 Fields, Barbara Oil 2.
13-11-11 Holmes, Independent O. & G. 15.
24-11-11 Fields, Lyons Pet. 8.
15-10-10 Tiplaw, Pratt & Burton 1.
7-10-12 Birdcreek, Guy Fisher & Carter Oil 2.

14-13-9e Calahan, Darby Pet. 1-A.
Rigs, 12; wells drilling, 55; total, 67.

HUGHES COUNTY
Rigs

13- 9-8e Paldo, Johnson Ashe et al 1.
1-9n-9e Cain, Minnehoma Oil 1.
26-9n-9e Davis, Foster Inv. Co. & Independent 2.
14-8n-9e Long, Independent O. & G. 1.
29-8n-9e McCrory, Magnolia Pet. 1.
5-7n-8e Garner, Dixie Oil 3.
Harjo, Amerada Pet. 9.
Street, Magnolia Pet. 1.
29-7n-8e Harjo, Magnolia Pet. 1.
11-5n-8e Stewart, Parmenter et al 1.

Wells Drilling

1-9n-9e Cain, Barnsdall Oil Co.
Cain, Minnehoma Oil 3.
Arbor, Mosey Oil 5.
2-9n-9e Alexander, Independent O. & G. 2.
3-9n-9e Alexander, Mid-Continent Pet. 9.
18-9n-9e King, Magnolia Pet. 1.
19-9n-9e Charles, I. T. I. Oil 1.
26-9n-9e Proctor, Independent & Darby Pet. 1.
Harjo, Transcontinental Oil 4.
Harjo, Transcontinental Oil 8, 9.
27-9n-9e Long, Gypsy Oil 2, 3.
Brown, Foster Inv. 1.
Long, Phillips Pet. 1, 3.
10-9n-10 Ana Lee, Detrick et al 1.
21-9n-10 Buck, Fuhrman & Newman 1.
24-9n-10 Barnett, Roxana Pet. 1.
10-8n-9e Harnage, Sands Pet. 1.
25-8n-9e Harjo, Independent O. & G. 1.
28-8n-9e Reed, Independent & Marray 1.
29-8n-9e Lowe, Kingwood Oil 1.
Carbogc, Papoose Oil 1.
18-8n-10 Diamond "A", Dixie Oil 2.
19-8n-10 Pickens, W. R. Ramsey 2.
32-8n-11 Bear, Johnson, Ashe et al 1.
5-7n-8e Garner, Dixie Oil 1.
Garner, Dixie Oil 2.
Harjo, Amerada Pet. 2, 4, 5, 6, 7, 8.
Ferguson, Gilcrease Oil 1.
8-7n-8e Turner, Magnolia Pet. 1.

Shut Down

4-9n-9e Alexander, Papoose Oil 10.
26-9n-9e Harjo, Transcontinental Oil 6.
27-9n-9e Long, Phillips Pet. 4.
4-9n-11 Harjo, Gibson & Zahniser 2.
17-8n-10 Carter, Robinson Fletcher et al 2.
18-8n-10 Diamond "C", Dixie Oil 3.
Morrison, Independent O. & G. 2.
8-6n-10 Kite, Walton, Snyder & Marshall 1.
30-5n-10 Pearson, Henry Greis & Kerr 1.
Rigs, 10; wells drilling, 46; total, 56.

MUSKOGEE AND WAGONER COUNTIES
Rigs

10-18-16 Kelly, Talbott Bros. 2.
29-18-17 Abrams, Flint Ridge Oil 2.
25-17-16 Tinker, Larsarskey et al 1.
31-17-17 Harris, Mitchell Oil 1.
11-16-16 Watson, Geo. S. Wilson et al 1.
35-16-17 Marshall, Denton & Marshall 1.
36-16-17 Brown, Barton et al 1.
Brown, Hale Ford Oil 3.

Wells Drilling

15-19-15 Sier, Mays Bros. 1-A.
21-18-16 Tiger, Eastern Okla. Prod. Co. 6.
3-17-16 McIntosh, Knox & Shouse 1.
25-17-16 McIntosh, Severeda Oil 3.
8-16-18 Chissoe, B. B. Wheeler et al 1.
14-15-15 Smith, Papoose Oil 1.
29-15-15 Sango, Link Oil 6.
27-14-16 Cherry, O. T. Gilbertson 2.
1-14-17 Sango, T-O Pet. 7.
21-14-17 Dean, J. L. Slusher 1.
30-14-19 Harris, E. M. Johnson 2.

Shut Down

19-19-16 Tiger, Mays Bros. et al 1-A.
28-18-17 Childers, R. M. Lear 1.
11-17-16 Mosey, A. E. Carder 1.
18-16-15 Peter, Hart et al 4.
32-16-15 McDaniel, Rogers et al 1-A.
20-13-16 London, Boomer Oil 1.
Rigs, 8; wells drilling, 17; total, 25.

CREEK COUNTY
Rigs

12-19-8e Porter, J. B. Grieves 1.
13-19-8e Ross, Gled Oil 3.
14-19-8e Miller, Devonian Oil 3.
30-18-8e Holman, J. O. Walters et al 1.
14-17-8e Fry, Alvard & West 4.
22-17-8e Johnson, Savoy Oil 4.
26-17-8e Cobb, Barnsdall Oil 3.
20-15-8e Beaver, Skelly Oil 1-A.
31-15-8e Bigpond, Carter E. Davis 1-A.
2-14-8e Davy, Henry & Whitehill 1.
12-14-8e Bruner, C. G. Tibbens 9.
Brown, T. P. C. & O. Co. 4, 5.
13-14-8e Sewell, C. G. Tibbens 11.
9-19-9e Ford, Christy & McMahan 2.
4-19-9e Fulson, Curtis Oil 1.
18-18-9e Jones, Eva Bell Oil 3.
4-18-10 Berryhill, Ike Simmons et al 1.
30-18-10 Marshall, Madden & Madden 1.
3-18-11 Leader, Gray Oil 2.
3-17-9e Simmons, The Texas Company 1.
21-17-9e Harjoche, T. P. C. & O. Co. 7.
11-17-10 Taconey, Commercial Cent. Oil 1.
16-17-10 Littlehead, M. P. Evans et al 1.
19-17-10 Dickson, The Texas Company 1.
Dickson, Independent O. & G. 2.
22-17-10 Gwin, Dillard et al 1.
23-17-10 Fulson, Kirshner et al 1.
Holden, Kirshner et al 2-A.
24-17-10 Bucktrot, Pioneer Pet. 6.
Tahkaney, J. H. Wright 8.
Strip, Brooker & Warren 1-A.
26-17-10 Bucktrot, H. C. Wilson 2.
16-17-11 Wilson, M. Mead et al 1-A.
30-17-11 Garald & Nichols, M. W. Evans 1.
7-16- 9 Sango, W. R. Davis 1.
20-16-9e Barnett, Dickerson et al 1.
21-16-9e Henderickson, Jackson & Wise 3.
34-16-11 Lowe, Iron Mtn. Oil 1.
30-15-9e Unallotted, C. G. Tibbens 28, 29.
31-15-9e Unallotted, Carter Oil 1.
Lucas, Skelly Oil 2.
1-15-10 Ashbury, H. C. Wilson 1.
5-14-9e Long, Joemack Oil 1.
20-14-10 Knight, Hall & Donnelly 2.
30-14-10 Craig, Wood Oil 2.
8-16-10 Sividan, Williams & Cole 1.
25-16-11 Lynele, Henry & Amerada Pet et al 1.
16-14-10 Bear, Atlantic O. P. 1.

Wells Drilling

21-17-7e Litchfield, The Prairie O. & G. 39.
30-14-10 Walker, The Prairie O. & G. 1.
11-14-8e Henderson, The Prairie O. & G. 3.
15-19-7e Manuel, H. W. Skelly 1.
32-19-7e Richards, Magnolia Pet. 4.
5-19-8e Noble, Bartlett & Mann 2.
6-19-8e McElroy, Mann & Smith 1.
17-19-8e Ruth, Gled Oil 3.
Peters, Burlengane & Sharp 4, 5, 6.
Weaver, The Texas Company 1.
28-19-8e Canard, F. R. Billingslea 1.
1-18-7e Jack, Sapulpa Refg. 2.
5-18-7e Rector, Riverside O. & R. 1.
Atkins, Gem Oil 24.
7-18-7e Vance, Magnolia Pet. 1.
Vida Way, Twin State Oil 3.
18-18-7e Fisher, Shaffer O. & R. 13.
15-17-7e Stewart, Mid-Continent Pet. 25.
17-17-7e Tiger, Gibson & Baker 1-A.
5-17-8e Hendrickson, Roxana Pet. 1.
12-17-8e Bishop, Aztec Oil 1.
14-17-8e Freeman, Alvard & West 2.
17-17-8e Wright, F. R. Billingslea 1.
19-17-8e Cubbie, Transcontinental Oil 1.
22-17-8e Mitchell, Barnsdall Oil 2.
Mitchell, Transcontinental Oil 1-A.
26-17-8e Cobb, Barnsdall Oil 2.
School land, Kite & Farren 1.
27-17-8e Bigpond, Inter-Ocean & J. W. McCullouch 2, 3.
Bruner, Joemack Oil 1, 2.
Bruner, Southwestern Pet. 1.
Alec, T. B. Slick & Stover 3.
Alec, Barnsdall Oil 5.
35-17-8e Marshall, Gypsy Oil 1.
9-16-8e Yardy, Margay Oil 3.
5-16-8e Emarthia, Magnolia Pet. 4.
6-15-7e Wattie, Magnolia Pet. 1.
Steele, Pure Oil 1.
25-15-7e Charles, Phillips Pet. 2.
19-15-8e Halloway, Lima Oil 1.
26-15-8e Narchubby, Bu-Vi-Bar Pet. 2.
Starr, Bu-Vi-Bar Pet. 2.
30-15-8e Bigpond, Lima Oil 1-A.
31-15-8e Sissie Jim, Tidal Oil 2.
2-14-8e Ponds, Gypsy Oil 7.
4-14-8e Brown, Simms Oil 1.
12-14-8e Bruner, C. G. Tibbens 8.
McKan, Skelly Oil 13.
Bruner, The Texas Company 4.
14-14-8e Durant, C. G. Tibbens 1-A.
1-19-9e Carolina, Buckeye Drlg. Co. 3.
18-19-9e Sewell, Roxana Pet. 1-A.
30-19-9e Boyd, Kingwood Oil 1.
1-18-9e Elliott, Kilgore et al 1.
21-18-9e Walker, J. A. Hull 2.
30-18-9e Gates, H. U. Bartlett 1.
Sherman, H. U. Bartlett 1-A.
36-18-9e Richard, Madden & Madden 1.
1-18-11 McGuire, Gypsy Oil 1-A.
2-18-11 Sherill, Sheridan Oil 2.
12-18-11 Land, E. L. Kistler 1-A.
32-18-11 Frew, Cross et al 1.
4-18-12 Hawkins, Devonian Oil 1.
5-18-12 Sizemore, S. E. Benson 1.
6-18-12 Sango, Sunray Oil et al 3, 4, 5.
36-17-9e Bright, D. B. Mason et al 2.
11-17-10 Smith, Ted Lillystrand 1-A.
23-17-10 Holden, J. H. Wright 3.
24-17-10 Dawson, J. H. Wright 8.
Tahkaney, J. H. Wright 7.
26-17-10 Bucktrot, H. C. Wilson 1.
7-17-11 McDougal, J. P. Evans 1.
8-17-11 Freeman, Ireland et al 5, 6.
28-17-11 Barnett, Transcontinental Oil 3.
21-16-9e Greenwood, Joemack Oil 2.
Jacobs, Emery & Son 7.
32-16-9e Hamilton, Wilcox O. & G. 7.
12-16-10 Unallotted, Sherry et al 1.
12-16-11 Childress, Edgerton et al 1.
17-16-11 Morgan, Crandell, Marta & Shaffer O. & R. 1-A.
30-16-11 Ricks, Sheridan Oil 1.
24-15-9e Edwards, J. W. McCullouch 1.
30-15-9e Unallotted, C. G. Tibbens 24, 25, 27.
31-15-9e Lucas, C. G. Tibbens 2.
5-14-9e Thompson, C. G. Tibbens 1.
17-14-9e Lucas, Gladys Belle Oil 1.
11-14-10 Webb, H. George et al 1.
29-14-10 Bear, Independent O. & G. 1.
Walker, Twin State Oil 1.
Walker, The Texas Company 1.

Shut Down

27-18-10 Allen, Vaughn & Wheeler 6.
15-18-11 Snow, Redgraves et al 1.
14-18-11 Tiger, O. N. White 1-A.
13-17-11 McIntosh, A. Sheldon 1-A.
36-16-9e Allen, Williams & Bell 1.
3-16-12 Sanderson, S. W. Anthony 2.
13-16-12 Unallotted, Winemiller et al 1.
5-14-10 Groom, Evans et al 1.
Rigs, 50; wells drilling, 107; total, 157.

PAWNEE COUNTY
Rigs

9-22-3e Arkeketa, Magnolia Pet. 3.
22-23-4e Zoldoskie, Donahue & Carter Oil 4.
1-21-6e Bryon, Independent O. & G. 1.
32-21-8e Sigon, Adamson C. O. & G. 7
9-20-6e Fugate B, Magnolia Pet. 2.
16-20-6e Burgman, Jim Glenn Oil 4.
17-20-6e Baker, Magnolia Pet. 3.
36-20-6e School land, Riverside Oil 1.
16-20-7e School land, Mid-Continent Pet. 20.
7-20-8e Childers, Minnehoma Oil 5, 6.
18-20-8e Turner, Shortgrass et al 1.
23-20-8e Van Emans, Selby O. & G. 5.
24-20-8e Hennessey, McMahon Oil 7.
6-20-8e Cotton, The Prairie O. & G. 3.

Wells Drilling

10-20-8e McNeal, The Prairie O. & G. 8.
15-20-6e Burton, The Prairie O. & G. 2.
33-23-3e Miller, Watchorn Oil 13, 14.
4-22-3e Miller, Magnolia Pet. 9, 10.
5-22-3e Wolfe, Champlin Refg. 1.
13-23-4e School land, Magnolia Pet. 1.
4-23-5e Krow, Magnolia Pet. 1.
16-22-4e School land, Magnolia Pet. 1.
35-22-6e Dobson, Devonian Oil 1.
8-21-6e Robertson, Dixie Oil 1.
25-21-6e Morris, Homa Wood Oil 1.
23-21-7e Carter, Turner et al 1.
21-21-8e —— Wasson & West 1-A.
32-21-8e Meyers, Adamson C. O. & G. 3.
34-21-8e Widener, Gypsy Oil 18.
33-20-5e School land, Marland Oil 1.
2-20-6e Newell, Magnolia Pet. 1.
9-20-6e E. Fugate, Magnolia Pet. 4.
S. M. Fugate, Magnolia Pet. 2.
16-20-6e School land, Magnolia Pet. 5.
19-20-6e White, Champlin O. & R. 1.
21-20-6e Freeman, Josey Oil 5.
22-20-6e Smith, Westerly Oil 5.
36-20-6e Garland, Cortez Oil 1.
16-20-7e School land, Mid-Continent Pet. 18, 19.
10-20-8e Dunn, Selby O. & G. 1.

Shut Down

33-23-3e Brown, Watchorn Oil 1.
Miller, Watchorn Oil 7.
5-23-5e Phillips, Haley Garber & Pulse 3.
31-22-7e Canfield, Bu-Vi-Bar Pet. 1.
35-21-8e Norman, Gypsy Oil 5.
28-20-6e White, Davis Drlg. Co. 1.
2-20-7e Peacock, Enfisco Oil 1.
4-20-7e Hallet townsite, W. A. McCabe et al 1.
11-20-7e Rogers, Block & Carnahan 1-A.
6-20-8e George, Producer Consolidated Oil 1-A.
24-20-8e Wasson, Southwestern Oil Fields Corp 19.
Rigs, 15; wells drilling, 40; total, 55.

KAY COUNTY
Rigs

17-27-1w Boyce "B", The Prairie O. & G. 1.
21-29-1w Duncan, Comar Oil 10.
28-29-1w Murphy, Comar Oil 3.
17-29-1e Brockhouser, Vernon O. & G. 4.
28-28-2e Huddleson, John Stark et al 1.
4-27-1w Kelly, Arkansas Fuel Oil 5.
Moore, Schouwald et al 1.
Case, Polling & Denny 4.
5-27-1w Jameson, Blackwell O. & G. 2.
10-27-1w Moore, Black Gold Oil 3.
17-27-1w Payne, Comar Oil 1.
19-27-1w Gaylor, Marland Oil 1.
31-27-1w Cade, Marland Oil 1.
28-27-1e Buessing, Ballentine et al 1.
1-26-2w Richmond, Marland & Amerada 4.
13-25-2w School, Marland Oil 1.
4-25-2e Myers, Marland Oil 10.
21-24-1w Smithisler, Champlin Refg. 2.

Wells Drilling

1-26-2w Smith "B", The Prairie O. & G. 7.
Smith, "A", The Prairie O. & G. 7, 1.
21-29-1w Priboth, Comar Oil 7.
Duncan, Comar Oil 12, 13.
16-29-1e School land, Wentz Oil 1.
17-29-1e Swinson, Harris & Hahn 1.
Dickerson, Marland Oil 1.
25-29-1e Smith, Strosnyder et al 1.
29-29-1e Meyer, Carter Oil 1.
30-29-1e Hennessey, Junction Oil 2.
20-28-2w Smith, Mississippi Valley Oil 1.
5-28-1w McCullouch, Comar Oil 4, 5.
Bechtel, Comar Oil 1-W, 3.
Biddle, Comar Oil 5.
Lawrence, Comar Oil 2.
Orr, Comar Oil 2.
Townsite, Braman Oil 1.
8-28-1w Horne, Comar Oil 1-W, 4.
27-28-1w Walker, Simms Pet. 1.
6-28-1e Wolfe, McComas et al 1.
33-28-1e Haun, Carter Oil 1.
31-28-3e Street, Davis Drlg. Co. 1.
4-27-1w Kelly, Arkansas Fuel Oil 4.
8-27-1w Jameson, Harris & Hahn 2.
Moore, Blackwell O. & G. 1.
9-27-1w Burkholder, The Texas Company 2.
Brown, Harris & Hahn 3, 4.
Geiger, Blackwell O. & G. 6, 7.
Kumler, Blackwell O. & G. 6.
16-27-1w Barr, Ostot et al 2.
17-27-1w Jameson, Carter Oil 3.
27-27-1w Peckham, Dance et al 1.
32-27-1w Chambers, O'Kansas Oil 1.
3-27-2e Balzar, Mississippi Valley Oil 1.
1-26-2w Hockstater, Marland Oil 1-A.
12-26-2w Hubbard, Marland Oil 5.
North, Marland Oil 2-A, 3-A, 4, 5.
28-26-1w Barcla, Tom Palmer et al 1.
32-26-2e McNeil, Ponca Lee Oil 1.
16-26-3e School land, Souligny et al 1.
15-25-2w Thomas, Marland Oil 7, 8.
School land, Marland Oil 7.
15-25-1w McDaniels, Tonkawa Dev. Co. 1.
28-25-1w Gardner, Gypsy Oil 1.
Siller, The Texas Company 2.
33-25-1w School land, Cosden & Marland 10.
35-25-1w Endicott, T. B. Slick 7.
14-25-1e Little Chief, O'Kansas Oil 1.
32-28-5e Milde, Waite Phillips & Marland 1.

Shut Down

20-29-1w Day, The Texas Company 2.
21-29-1w Priboth, Comar Oil 2.
Harvell, Comar Oil 8.
5-28-1w Orr, Comar Oil 3.
31-28-1w Bebb, D. W. Moore et al 1.
11-28-1e Lowery, Okla. Northern O. & G. 1.
3-28-3e Eaton, Parkhurst & Graham 1.
16-27-1w Skelton, Manahan et al 3.
Barr, Manahan et al 2.
Slocum, Anolu Oil 3.
18-27-1w Johnson, Una Lee Oil 1.
6-26-1w Glasgow, Natl. Union Oil 1.
15-25-2w Thomas, Marland Oil 6.
28-25-1w Mahoney, Wentz Oil 9.
34-25-1w Endicott, Pennock Oil 2.
Rigs, 18; wells drilling, 75; total, 93.

LINCOLN COUNTY
Rigs

8-14-5e Martin, The Prairie O. & G. 1.
30-17-5e West, Carter Oil 1.
35-16-6e Johnson, Madden & J. A. Hull 1.
33-15-5e Temming, Magnolia Pet. 1.
35-15-5e Caves, Gypsy Oil 11.
8-15-6e Earp, Mid-Continent Pet. 7.
2-14-5e Tuttle, Carter Oil 8.
4-14-5e Strough, Pure Oil 2.
10-14-5e Patterson, Phillips Pet. 6.
11-14-5e Caves, Gypsy Oil 14.
Roberson, The Texas Company 1.
33-13-4e Williams, Phillips Pet. 1.
1-12-5e Thompson, Independent & McCullough 1.

Wells Drilling

3-14-5e Stout, The Prairie O. & G. 20, 21.
35-15-5e Sproleder, The Prairie O. & G. 2.
10-14-5e Cage, The Prairie O. & G. 1.
33-17-4e Griswald, Mid-Kansas Oil 1.
5-16-5e Van Camp, T. P. C. & O. Co. 1.
26-16-5e Rittenhouse, Lynn & Morgan 1.
25-15-3e Lillibridge, Wilcox O. & G. 1.
34-15-5e Sproleder, Magnolia Pet. 4.
M. & F. Sproleder, Magnolia Pet. 8.
35-15-5e Caves, Gypsy Oil 10.
36-15-5e School land, Wentz Oil 1.
5-15-6e Howard, Independent O. & G. 2.
7-15-6e Ford, Skelly Oil 5.
8-15-6e Earp, Mid-Continent Pet. 3, 4, 5, 6.
Kilgore, Phillips Pet. 2.
16-15-6e School land, Sinclair Oil 1.
7-14-4e Norton, T. B. Slick 1.
2-14-5e Hopkins, Amerada Pet. 4.
Hopkins "C," The Texas Co. 2.
Bigwater, Twin State Oil 9.
3-14-5e Belless, Magnolia Pet. 1, 2, 3.
4-14-5e Thompson, Magnolia Pet. 4, 5.
10-14-5e M. & F. Chapman, Mag. Pet. 1, 2.
Patterson, Phillips Pet. 4.
Nickel, Shaffer O. & R. 4, 5.
11-14-5e Caves, Gypsy Oil 12, 13.
21-14-5e Deane, Southwestern Pet. 1.
22-14-6e Sac & Fox School land, Wilcox O. & G. 3.
7-13-3e Ewing, Douglas Oil 1.
12-13-6e Reeves, Amerada Pet. 1.
5-12-3e Jones, Wilcox O. & G. 2.

Wells Shut Down

20-17-6e Johnson, Hiram C. Wilson 1.
36-15-4e Cull, Ruby et al 1.
34-15-5e Spholeder, Magnolia Pet. 3.
35-15-5e Caves, Gypsy Oil 7.
36-15-5e Johndahl, Amerada & Marland 1.
School land, Mid-Kansas Oil 1.
15-16-6e Hubbard, Johndahl 1.
1-14-5e Keeler, Devonian Oil 1, 2.
Powers, Sinclair Oil 1.
10-14-5e Davenport townsite, Mag. Pet. 1.
Davenport townsite, block 3, Magnolia Pet. 1.
16-14-5e School land, No. 6, Magnolia Pet. 1.
31-12-6e Bentley, J. W. McCullough 1.
Rigs, 13; wells drilling, 55; total, 68.

PAYNE COUNTY
Rigs

24-19-4e Pleasants, Magnolia Pet. 5.
11-19-6e Barry, A. A. Bailey and Superior Oil 1.
26-18-3e Waltman, T. C. M. Oil 3, 4.
27-18-3e Murlin, Gypsy Oil 1.
22-20-2e Catts, Colorado O. & G. 1.

Wells Drilling

14-19-4e Shannon, the Prairie O. & G. 1.
22-20-3e Royester, Ossenbeck 1.
23-20-4e Windstaff, Wentz Oil 1.
4-19-1w Kinneman, Reiter-Foster Oil 1.
12-19-1w Combs, Tidal Oil 1.
13-19-4e Stover, Roxana Pet. 2, 3, 4, 5.
14-19-4e Shannon, Magnolia Pet. 1.
Erwin, Olean Pet. 2, 3.
Stephenson, Mid-Cont. Pet. 1.
23-19-4e Ellis, Olean Pet. 2, 3.
Stover, Magnolia Pet. 1.
24-19-4e Pleasants, Magnolia Pet. 2, 3, 4, 6.
Bolton, Olean Pet. 2, 3, 4.
36-19-4e School land, Magnolia Pet. 1.
14-19-5e Myers, Twin State Oil 1.
35-19-5e Laughlin, Josey Oil 11.
36-19-5e Long, Josey Oil 5.
22-18-3e Berry, Mulberry Oil 1.
Nelson, T. P. C. & C. Co. 1, 2.
Nelson, J. A. Hull Oil 2.
23-18-3e Ostrander, Deep Rock O. & G. 1.
Derry, Deep Rock O. & G. 5.
Shannon, Deep Rock O. & G. 2, 3, 4.
Givens, Shaffer O. & R. 2, 3, 4, 5.
Ostrander, Pure Oil 3.
26-18-3e Barth, Deep Rock O. & G. 3, 4.
Morehead, Deep Rock O. & G. 1-A.
Liston, Empire G. & F. 1, 2, 3, 4.
Waltman, T. C. M. Oil 1, 2.
27-18-3e Ethridge, Deep Rock O. & G. 1, 2.
10-18-4e Cole, Deep Rock O. & G. 1.
26-18-4e Broyles, New England O. & P. L. 2.
1-18-5e Laughlin, Home Gas Co. 2.
2-18-5e Busbee, Josey Oil 2.
7-18-5e Goss, P. & R. Corp. 2-A.
Goss, Twin State 1.
Blue, Marland Oil 3.
8-18-6e Welsh, Consolidated Drlg. Co. 1-A.
30-18-6e Laughlin-Berry, Home Gas 1.
6-17-4e Kirk, Home Gas 1.
Payne, Magnolia Pet. 4.

Wells Shut Down

21-19-1w Lewis, Ponca O. & G. 1.
13-19-4e Stover, Roxana Pet. 6.
8-19-5e Garr, Garr Oil 4, 5.
1-18-5e Laughlin, Josey Oil 4.
27-18-6e Culbertson, McGill et al 1.
Rigs, 6; wells drilling, 69; total, 75.

NOBLE COUNTY
Rigs

21-24-1w Smithisler, Champlin Rfg. 2.

Wells Drilling

6-24-2w Stephenson, Marland Oil 1.
18-24-2w Coulter, Olean Pet. 1.
16-24-1w School land, Cosden & Marland 12.
1-24-1e 101 Ranch, Geo. Miller 1.
9-24-1e Miller, Independent et al 1.
14-24-2e Edmonds, Ossenbeck et al 1.
15-23-2w Washburn, Sinclair Oil 1.
22-23-2w Brumfield, Mid-Con. Pet. 15.
18-22-2w Pfrimmer, Hartman & Skaer 1.
26-22-2w Shoop, Champlin Refg. 1.
13-22-2e Tillman, Skelly & A. D. Crow 1.
15-21-2w Taylor, Magnolia Pet. & Bu-Vi-Bar 1.
16-21-2w Hoffman, Magnolia Pet. 1.
Hoffman, Red Bank Oil 1.
Treman, Red Bank Oil 1.
21-21-2w Reynolds, Magnolia & Bu-Vi-Bar 1.
22-21-2w Weeder, Magnolia Pet. 1.
18-21-2w Snyder, Bu-Vi-Bar Pet. 1.
7-21-1w Williams, R. L. Corley 1.

Shut Down

22-24-2w Kurby, Wilkins & Kors 1.
29-24-1w Reed, Mid-Cont. Pet. 6.
33-22-2w Burk, Elane Oil 1.
12-21-3e Sawyer, Ossenbeck & McMann 1.
32-20-1e Hall, Nelson & Hardin 1.
Rigs, 1; wells drilling, 24; total, 25.

GARFIELD COUNTY
Rigs

24-24-3w Disney, Failing & Lawson 1.
36-23-5w Nelson, Ostot et al 1.
13-22-4w School land, Mid-Cont & Marland 57, 60, 67, 68, 69, 70, 71.
Walker (North), Sinclair Oil 2, 43, 44, 1, 6.
24-22-4w Belveal, Sinclair Oil 21.
36-22-4w Metcher, Sinclair Oil 16.
18-22-3w Schroeder, Roxana Pet. 8-H, 9-L, 5-T.
Hartley, Sinclair Oil 13, 36, 37, 38.
19-22-3w Kisner, (West), Sinclair Oil 27, 28, 29.
11-21-4w Fee, Beople et al 1.
5-21-3w Cain, Pender Pet. 2.
12-20-4w Miller, Marland Oil 1.

Wells Drilling

1-22-4w Johnson, The Prairie O. & G. 2.
12-22-4w Wishard, The Prairie O. & G. 11, 12
6-21-3w Bostwick, The Prairie O. & G. 1.
22-24-6w Zalodek, Wilcox O. & G. 1.
10-24-4w Meyers, Sinclair Oil 1.
32-24-4w Brunkin, Shaffer-Gardner 1.
14-24-3w Gorusch, Sagar Oil 1.
34-24-3w Hayes, Sinclair Oil 1.
15-23-5w Hennessey, Wilcox O. & G. 1.
6-23-4w Chevelier, Haley, Garber & Pulse 1.
29-23-4w Bunker, Roxana Pet. 1.
31-23-4w Johnson, Bu-Vi-Bar Pet. 1.
19-23-3w Garber, Marland Oil 1.
12-22-4w Wishard, Mid-Cont. Pet. 17, 18.
13-22-4w School land, Mid-Cont. & Marland 6, 46, 59, 62, 63, 64, 65.
Denker, Sinclair Oil 6.
Walker, (North), Sinclair Oil 1, 15, 31, 32, 38, 39, 40, 41, 42.
Wolfe, Roxana Pet. 3, 4-w.
24-22-4w Belveal, Healdton Pet. 19, 32.
25-22-4w Hotson, Empire G. & F. 15.
36-22-4w Ed Kisner, Sinclair Oil 7.
7-22-3w Lynds, Franchott 3.
16-22-3w School land, Hopper-Chappel 1.
18-22-3w Schroeder, Roxana Pet. 7, 10-A, 3-H, 4-H, 6-H, 7-H, 2-L, 3-L, 5-L, 8-L.
Hartley, Sinclair Oil 2, 6, 22-A, 28, 29, 30, 31, 32, 33, 34, 35.
Whitney, Sinclair Oil 6.
19-22-3w Kisner (East), Sinclair Oil 15.
Kisner (West), Sinclair Oil 26.
21-22-3w ———, Champlin Refg. 1-A.
30-22-3w Burns, Sinclair Oil 1.
Crews, Sinclair Oil 6.
31-22-3w McLean, Imo Oil 7.
12-21-5w Smith, Tidal Oil 1.

22-21-3w Detwiler, Slick & Harrington et al 1.
11-20-8w Secor, Garfield Buel et al 1.
2-20-5w Fee, Sinclair Oil 1.
8-20-4w Looman, Marland Oil 1.
16-20-4w School land, Mid-Cont. & Marland 1.

Shut Down

17-23-8w Dyche, Jack Reid et al 1.
26-23-7w Cox, Katherine Oil Synd. 1.
6-23-6w Hess, Weir & Wood 1.
35-23-3w Carter, Failing & Lawson 1.
3-22-5w Swinery, Ashby & Barr 1.
1-22-4w Seaman, Hopper et al 1.
13-22-4w School land, Mid-Cont. & Marland 56.
Wolfe, Roxana Pet. 5-W.
14-22-4w Dively, Sinclair Oil 1.
24-22-4w Beggs, Champlin Refg. 34.
Dively, Carter Oil 53.
27-22-4w Peters, Hopper et al 1.
18-22-3w Schroeder, Roxana Pet. 10-W, 13-W
2-21-7w Montgomery, Frank Frantz 1.
31-21-5w Vanderwork, E. A. Summers 1.
12-21-4w Schriver Estople et al 1.
8-21-3w Bartles & Dieckwaid Oil 1.
7-20-6w Semrad, O. O. Owens 1.
13-20-4w Faramei, Summers et al 1.
Rigs, 29; wells drilling, 94; total, 123.

GRANT COUNTY

Rigs

24-27-3w Birdston, Burns & Beasley 1.
34-26-4w Royce, Brazill & Moses 1.

Wells Drilling

19-28-3w Lehring, Wrightsman 1.
8-27-8w Moore, Register Oil 1.
2-27-3w Webb, Marland Oil 1.
22-27-3w Lane, Blackwell O. & G. 2.
23-27-3w Martin, Clay O. & G. 3.
33-26-3w Muegge, Gypsy Oil 1.
6-28-3w Snyder, Ostot Dev. Co. 1.

Shut Down

14-27-3w Howell, Western States 1.
22-27-3w Stewart, Western States Oil 4-A.
23-27-3w Flood, Larutan Fuel Co. 1.
27-27-3w Lane, Western States Oil 1.
32-25-4w Vallner, Chowkin 1.
16-26-3w Sherrer, Flannigan & Dedman 1.
23-26-3w Tabor, Lambert & Minks 1.
36-28-3w School land, Marland Oil 1.
Rigs, 2; wells drilling, 15; total, 17.

GRADY COUNTY

Rigs

31-10-8w Thompson, Hawkins & Young 1.
10-9n-6w Baker, Traves et al 1.
35-5n-8w Dryden, Magnolia Pet. 1.
Dryden, J. B. Nichols Oil 2.
2-4n-8w Dryden, Carter Oil 3.
14-4n-8w Pendley, Magnolia Pet. 1.
27-3n-5w Folson, Gant et al 1.
Kilgore, Clark & Cowden et al 2.
28-3n-5w Harrison, Magnolia Pet. 3.
34-3n-5w Kerans, Magnolia Pet. 1.
Wham, Carter Oil 1.
3-4n-8w Dryden, The Prairie O. & G. 2.

Wells Drilling

3-4n-8w Dryden, The Prairie O. & G. 1.
22-5n-8w Pooler, The Prairie O. & G. 4.
31-8n-7w Webb, Watchorn O. & G. 1.
29-6n-7w Brown, Becker et al 1.
22-5n-8w Charles, Sinclair Oil 4.
23-5n-8w McCaughtry, Stogner et al 2.
34-5s-8w Scott, Carter Oil 1.
35-5n-8w Duke, Magnolia Pet. 2.
11-4n-8w Moss, Hall-Briscoe 2.
5-3n-5w Dutton, Sinclair Oil 1.
Dutton, Marvin Drlg. Co. 1.
Gardenhire, Carter Oil 1.
27-3n-5w Folson, Magnolia Pet. 1.
Mosely, White Eagle O. & R. 1.
34-3n-5w Mitchell, McBride et al 1.
35-3n-5w Abernathy, Carter Oil 3.
Lindsey, Carter Oil 3.

Shut Down

2-8n-8w Bray, John Schwartzficher 1.
23-5n-8w Edmundson, Skelly Oil 1.
35-5n-8w Dryden, J. B. Nichols Oil 1.
10-5n-7w Kleeman, Badgett & Hughes 1.
Rigs, 12; wells drilling, 21; total, 33.

COMANCHE COUNTY

Rigs

24-2n-10w Allen, Humble O. & R. 1.
Cox, Wm Green 3.
30-2n-9w Indian, Continental Oil 2.
Hardy, Magnolia Pet. 2.
5-1n-10w Neely, P. W. Appleby Jr., 1.

Wells Drilling

30-2n-9w Hardy, Magnolia Pet. 3.
Price, Magnolia Pet. 3.
30-1s-13w Cox, Mid-Kansas Oil 1.
21-4n-10w Rowe, Mid-Kansas Oil 1.
30-4n-10w Hinds, Clyde Becker 1.
32-4n-10w Roll, Cochran & Abernathy 1.
34-4n-10w Gamble, John Graham 2.
35-4n-9w Warehime, Daisey Bell Oil 1.
3-3n-10w Hallum, Becker et al 3.
10-2n-10w Spitler, Danciger Oil 1.
20-2n-10w School land, Ashcraft et al 1.
23-2n-10w Weaver, Stanforth & Maer 1-A.
24-2n-10w Allen, Shaw & Rathke 1.
Watson, Westheimer & Dauble 1.

Shut Down

4-3n-10w Saunder, Cook & Graham 1.
33-3n-10w Hendricks, Mid-Kansas Oil 1.
6-2n-9w Austin, Harry Hanbury 1.
29-1n-12w Bentley, Bentley et al 1.
Rigs, 5; wells drilling, 18; total, 23.

STEPHENS AND COTTON COUNTIES

Rigs

31-2n-4w Jefferson, Lewis Clarke Pet. et al 1
25-1n-9w Harris, Magnolia Pet. 11.
11-1n-8w Lowery, Pet. Producers Co. 1.
30-1n-8w Hardin, Carter Oil 7.
22-1s-8w Warner, C. & O. Drlg. Co. 1-A.
28-1s-8w Taliaferro, Carter Oil 1.
34-1s-8w Kagay, Magnolia Pet. 16.
36-1s-8w Jameson, Merchant & Fain 1.
5-1n-9w Borevenski, Red Seal Refg. 1.

Wells Drilling

26-2n-9w Richardson, Magnolia Pet. 1.
2-2n-5w Garvin-Simms, Carter Oil 7.
Green, Carter Oil 2.
Hervey, Carter Oil 1.
1-2n-4w Conner, Danciger Oil 1.
7-2n-4w Simms, Green et al 1.
13-1n-9w School land, Pierce & Brown 1.
23-1n-9w Brown, Steve Linson 4.
6-1n-8w ———, Beasley & Lane 1.
19-1n-8w Funk, Ill-Okla. Oil Co. 1.
31-1n-8w Heiser, Kinsey Law et al 3.
2-1n-5w Payne, Murphy Oil 2.
32-1n-5w Charleson, Magnolia Pet. 1.
22-1s-9w Tis-So-Ya, Magnolia Pet. 1.
25-1s-9w Russell, Magnolia Pet. 7.
Church lot, Winkler & McQueen 1.
Massey, Gamble et al 1.
35-1s-9w Dolch, Gant et al 1.
20-1s-8w Brittian, Malernee & Dunlap 8.
Brittian, Safety First Oil 7.
D. Bartley, Magnolia Pet. 11.
28-1s-8w Ross, Guy Brown 3.
Nelson, Winkler & McQueen 1-A.
29-1s-8w Stephens, Magnolia Pet. 2.
30-1s-8w Brown, Lone Star-Ft. Ring 8.
Brigham, Beard & Cobb 1.
32-1s-8w Shelton, Inter-Ocean Oil 9.
33-1s-8w Glass, Magnolia Pet. 5.
26-1s-5w Skelly, Skelly Oil 28.
34-1s-5w Zeigler, Magnolia Pet. 18.
11-2s-11w Reveille, Blair & O'Donahue 1.
2-2s-8w Houston, Pace-Texhoma 1-A.
21-2s-7w Johnson, Magnolia Pet. 1.
3-2s-5w Brown, Magnolia Pet. 3.
Harris, Magnolia Pet. 2.
11-2s-5w Martin, Magnolia Pet. 4.
8-2s-4w Cobb, Magnolia Pet. 9.
11-3s-9w Davis, Continental Oil 1.
11-3s-6w Florence, Gibson & Johnson 1.
33-3s-6w Melton, Burris & Stahl 1.
9-5s-10w Johnson, Barker & Eaton 1-A.

Shut Down

9-1n-8w Scruggs, E. N. Lust 1.
21-1s-10w Johns, McBee & Peacock 1.
28-1s-8w Nelson, V. A. Kidney 1-A.
11-2s-9w Gunn, Pauline Oil 1.
2-2s-8w Dare, Pace Texhoma Oil 1.
29-2s-7w Bristow, Womack 1-A.
12-4s-10w Cooper, W. B. Lindsey 1.
Rigs, 9; wells drilling, 48; total, 57.

JEFFERSON COUNTY

Rigs

7-4s-8w Holley, Josey & Griffith 1.
5-4s-6w Hunton, Homa-Okla. Oil 1.
28-6s-5w Seay, Couch & Brown 1.
33-6s-5w Seay, A. C. Brown 5.
Seay, Gypsy Oil 22, 23.
18-7s-5w Alexander, Humble O. & R. 1.
25-7s-4w Black, Pender Prod. Co. 1.

Wells Drilling

31-6s-5w Seay, Simpson, Fell & Sigler 1.
33-6s-5w Indian, A. C. Brown 4.
Jones, Carter Oil 3.
Seay, Carter Oil 2.
Seay, Gypsy Oil 21, 20.
18-7s-5w James, Humble O. & R. 1.

Shut Down

21-5s-6w Cowden, Kelsey et al 1.
34-5s-6w Major, Oasis Oil 1.
33-6s-5w Indian, A. C. Brown 2.
23-7s-7w Hayes, L. C. Hivick et al 1.
5-7s-5w Seay, Woodruff Brothers 1.
Rigs, 8; wells drilling, 12; total, 20.

PONTOTOC & GARVIN COUNTIES

Rigs

6-3n-7e Lloyd, Ada Dev. 5.
16-1n-3w Maudlin, Magnolia Pet. 8.

Wells Drilling

28-5n-5e Copeland, La Salle et al 1.
5-4n-6e McAlister, Pilgrim Pet. 1.
17-4n-6e Phillips, Bryan et al 1.
14-4n-7e Norris & Beck, Howarth O. & G. 1.
31-4n-7e Blackburn, Loss Oil 1.
35-3n-2e Franklin, T. P. C. & O. Co. 1.
32-3n-3e Hensley, Cosden et al 1.
28-3n-4e Lloyd, O. F. Smith 1.
6-3n-7e Lloyd, Ada Dev. 24.
16-1n-3w Harris, Magnolia Pet. 8, 11.
17-1n-3w Deryden, Carter Oil 7.
Deryden, The Texas company, 12, 1-B.
Deryden, Mid-Cont. Pet. 3.
21-1n-3w Boutwell, T. P. C. & O. Co. 1.
5-1n-1e Christener, D. Jones 1.

Shut Down

25-5n-6e Patterson, Gillette & Krueger 1.
18-4n-6e McClure, Bryan & Gillette 1.
28-4n-7e Faulkner, Hughes et al 2.
1-3n-4e Greenwood, Lloyd & Smith 1.
Rigs, 2; wells drilling, 21; total, 23.

CARTER COUNTY

Rigs

18-1s-3w Hardin, Magnolia Pet. 2.
34-1s-3w Snyder, Humble O. & R. 1.
Hernstadt, Glimer 2.
34-1s-3w Fish, Magnolia Pet. 4.
Parnell, Simpson & Fell 3.
23-2s-3w E. Lohman, Magnolia Pet. 10.
M. Williams, Magnolia Pet. 1.
7-2s-2w Higgins, Coline Oil 7.
Watkins, Iowa Oil 2.
8-2s-2w Pierce, Skelly Oil 1.
15-2s-2w Pierce, Magnolia Pet. 1.
Cox, Magnolia Pet. 1.
16-2s-2w Cox, Magnolia Pet. 2.
23-2s-2w Noble, Magnolia Pet. 1.
24-5s-1e Jelliff, Schermerhorn et al 1.

Wells Drilling

18-1s-3w Hardin, Magnolia Pet. 2.
19-1s-3w Winters, Magnolia Pet. 1-A.
31-1s-3w Moore, Magnolia Pet. 1.
33-1s-3w Lusk, Humble O. & R. 4.
Bumpass, Magnolia Pet. 1.
34-1s-3w Hernstadt, Glimer 3.
McClish, Gypsy Oil 1.
Snyder, Magnolia Pet. 2.
Fish, Magnolia Pet. 3.
Gault, Simpson & Fell 1, 2.
Farnell, Simpson & Fell 2.
Snyder, Westheimer 1.
19-1s-2w Morris, McGee 1.
2-2s-3w Delman, Magnolia Pet. 1.
3-2s-3w Pruett, Wirt Franklin & Prairie 1.
15-2s-3w Howard, Twin State Oil 1.
Jennings, Lathrop-Dennis & W. Franklin 1.
Carpenter, Mid-Cont. Pet. 1, 2.
22-2s-3w Carpenter, Humble O. & R. 8.
Morris, Magnolia Pet. 1.
Calvery, Wirt Franklin 1.
Carpenter, Wirt Franklin 5, 6.
23-2s-3w E. Lohman, Magnolia Pet. 7.
S. Lohman, Magnolia Pet. 4.
29-2e-3w Morris, Gypsy Oil 3.
32-2s-3w Johnson, Sturm Drlg. Co. 1.
7-2s-2w Pierce, Coline Oil 9.
8-2s-2w Caughman, Roxana Pet. 2.
16-2s-2w Higgins, Roxana Pet. 1-B.
22-2s-2w Cox, Magnolia Pet. 1.
25-2s-2w McCoy, Hivick et al 1.
27-2s-2w Noble, F. W. Merrick et al 2.
31-2s-2w Bennett, Graham Mineral Trust 13.
8-3s-2w Moyer, Humble O. & R. 3.
Fitzgerald, F. W. Merrick et al 1.
Nicholson, Merrick & Cameron 1.
9-4s-2w Hazel-Vorhess, Simpson & Fell 3.
16-4s-2w Shellenburg, Magnolia Pet. 12.
22-4s-2w Dillard, Baker & Strawn 12.
8-5s-1w Lasher, Pandem Oil 1.
35-5s-1w Joy, Humble O. & R. 1.
20-5s-1e Farve, Amerada Pet. 24.
Farve, Amerada Pet. 26.
28-5s-1e Fish, Amerada Pet. 17.

Shut Down

7-2s-2w Watkins, Iowa Oil 1.
1-4s-3e Barnes, Humble O. & R. 1.
13-5s-3w Beal, Wickenhiser O. & R. 3.
Rigs, 15; wells drilling, 50; total, 65.

MISCELLANEOUS COUNTIES

Rigs

Harper County—
30-29-22w ———, D. T. Water 1.
Woodward County—
4-23-17w Nordyke, Diamond Drlg. Co. 1.
Logan County—
11-18-3w Mathews, Santrock Drlg. Co. 1.
Kingfisher County—
6-16-7w Canfield, Pet. Eng. Core Drill Co. 1
20-15-8w Otis, Hoffman et al 1.
23-15-5w Davidson, Reiter & Foster 1.
Oklahoma County—
7-14-3w ———, J. V. Bailey 1.
17-14-2w Lynn, Von Stein & Hagerling 1.
13-13-1w Martin, E. A. Hawley & Rosser 1.
Pittsburg County—
32-9n-16e Smith, J. L. Pattison 1.
Beckham County—
25-8n-22w Vanvector, Kadane et al 1.
Kiowa County—
5-6n-18w Bonham, A. C. Varner 1.
Caddo County—
31-6n-9w Jones, Briscoe & Hall 1.
1-5n-9w Funk, Cont. Diamond Core Drlg. Co. 1.
10-5n-9w Bigley, Briscoe & Hall 1.
Marshall County—
24-5s-5e Arbuckle, United Eight Oil 3, 5.
Wells Drilling and Shut Down
(Shut down wells indicated by *)
Alfalfa County—
8-28-12w ———, W. J. Hartley & C. W. Green 1*.
Mayes County—
20-26-20 Longcrier, J. C. Fore & F. R. Shepard 1.
8-20-19 Drew, J. L. Dixon 1.
McIntosh County—
2-12-15 McIntosh, Beggs O. & G. 1*.
2-12-15 Richards, Tiger Mtn. Oil 1.
Sequoyah County—
15-11-26 Mayfield, Citizens Gas Co. 1*.
Latimer County—
7-5n-18 Hunt, P. & F. Pet. 1*.
Pittsburg County—
8-2n-16 Wilkin, Barker & Halley 1*.
Pottawatomie County—
26-11n-4e Kline, Sikes, Kilgore & Shaffer 1.
12-10-3e Ives, Sikes, Kilgore & Shaffer 1.
25-10-4e Madgett, J. W. McCullough Inc. 1.
28-10-4e Toney, Central Natl. Oil 1*.
16-10-5e School land, Clark Edwards et al 1.
15-7n-4e Standridge, Darby Pet. 1.
19-7n-4e Neghan, Croxton & Bucklin 1.
10-6n-2e McCahey, Davis Detrick et al 1.
20-6n-4e Hibbard, Croxton Wrightsman et al 1.
16-9n-5e School land, Gypsy Oil 1.
Beckham County—
24-9n-25w ———, W. H. Sheldon 1.
25-8n-22w McGee, W. R. Duke 1*.
Caddo County—
31-6n-9w Abernathy, English Drlg. Co. 3.
29-5n-12w Ulbrenn, W. J. Hartley 1*.
6-5n-9w Culp, Briscoe & Hall 5.
12-5n-9w Wagner, Gorton Trust Co. 3.
Tillman County—
13-1s-18w Snelling, Oasis Oil 1*.
Harper County—
14-25-22w Cooper, Hoffer Oil 1.
Kiowa County—
6-2s-16w ———, Landfair et al 1*.
Johnson County—
26-4s-5e Chastain, Deese et al 1.
Atoka County—
17-4s-11 Dabney, Hanson et al 1*.
Marshall County—
17-5s-5e Sacra, Kennedy Drlg. Co. 1.
21-5s-5e Sacra, Gill et al 1.
30-5s-6e Marshall, United Eight Oil 1.
Love County—
10-6s-3w Laten, R. M. Boring et al 1.
28-6s-2e Fee, Westheimer 1.
12-9s-1e Gray, R. B. Pender et al 1.
Ellis County—
32-24-24w Meehan, Utility O. & G. 1*.
Major County—
36-22-14w Cheyenne Basin, The Texas company 1*.
36-21-11w Gray, Frantz & Slick 1*.
Woodward County—
34-20-20w ———, Small & Kennessey 1.
Logan County—
33-19-4w ———, Bryan & Emery 1.
28-18-14w Moore, Franklin Oil Assn. 1*.
33-18-3w Quier, Haley & Pioneer Pet. 1*.
21-18-2w Donahue, J. L. Donahue et al 1.
28-16-1w Lair, Blackford O. & G. 1*.
Dewey County—
7-18-15w Chronister, Myers 1*.
8-18-15w Perfect, Huckleby-McCoy 1*.
Kingfisher County—
27-16-6w Sturgeon, McKenna & Crawford 1.
17-15-6w Creaves, Chi Oil & Nicholas 1*.
Blaine County—
21-15-10w Eklemier, Okoma Oil 1*.
Canadian County—
9-14-6w Platt, A. D. Spears et al 1*.
34-13-9w Dawson, Thos. Revelle 1.
2-13-8w Setter, Carroll & Zweichaer 1*.
29-11-7w Sanders, O. D. Jones 1*.
Oklahoma County—
15-14-2w Meyer, Red Seal Refg. 1.
9-14-1w Miller, Maxine Pet. 1.
10-12-3w Edwards, Cromwell O. & G. 1*.
Texas County—
32-5n-12e Havey, Valerius O. & G. 1.
21-4n-14e Horey, Wilcox O. & G. 1.
18-3n-12 Hughes, Valerius O. & G. 1.
28-3n-13e Del, Wilcox O. & G. 1.
9-3n-15e ———, Reiter-Foster 1.
4-1n-12e ———, Haley, Garber & Pulse 1.
Rigs, 17; wells drilling, 62; total, 79.

KANSAS FIELDS

KANSAS FIELDS

County—	Comp.	Prod.	Dry	Gas
Anderson	30	1,620	7	3
Butler	35	4,670	11	6
Chautauqua and Elk	18	265	6	3
Cowley	20	845	9	2
Greenwood	59	8,765	12	0
Lyon	9	2,380	3	0
Russell	7	1,230	0	0
Miscellaneous	23	555	14	4
Total April	201	20,330	62	12
Total March	211	17,310	74	6
Difference	10	3,020	12	6

Summary of Rigs and Wells Drilling

County—	Rigs	Drg.	Ttl.
Butler	10	48	58
Chautauqua and Elk	4	17	21
Cowley	7	35	42
Greenwood	44	82	126
Kingman	2	9	11
Lyon	15	27	42
Montgomery	0	13	13
Rice	1	11	12
Russell	0	12	12
Sumner	2	11	13
Miscellaneous	18	91	109
Total April	103	356	459
Total March	103	360	463
Difference	0	4	4

ANDERSON COUNTY
WELLS COMPLETED

5-21-21 Finkenbinder, Doering et al 1 gas
28-21-21 Little, Childs et al 1 85
33-20-21 Kretchmer, McGill et al 1 90
Cleveland, McGill et al 3 100
Cleveland, McGill et al 2 100
32-20-21 Jackson, McGill et al 7 120
28-20-21 Cleveland, Deering et al 3 20
4-21-21 Rosell, McGill, Vanhorn & Denton 16 20
Connelly & Loriaux, Southwestern Pet. 15 90
Connelly & Loriaux, Southwestern Pet. 14 100
Connelly & Loriaux, Southwestern Pet. 13 ..... dry
Connelly & Loriaux, Southwestern Pet. 12 25
Connelly & Loriaux, Southwestern Pet. 16 ..... dry
33-20-21 Kretchmer, McGill et al 1 85
Marie, McGill et al 4 100
32-20-21 Jackson, McGill et al 8 110
13-21-20 Ewing, Peerless Oil of Kans. 17 80
Ewing, Peerless Oil of Kans. 18 dry
18-21-21 Mulkey, Brady & Morrison 11.. 120
33-20-21 Cleveland, McGill et al 4 85
Kretchmer, McGill et al 2 80
4-21-21 Connelly & Loriaux, Southwestern Pet. 17 70
Connelly & Loriaux, Southwestern Pet. 18 50
Connelly & Loriaux, Southwestern Pet. 19. ..... dry
17-20-21 Cook, Richards et al 2 ..... dry
5-21-21 Finkenbinder, Doering et al 1.. gas
32-20-21 Warner, Doering et al 1 ..... gas
12-20-20 Owens, Harrington et al 1 .... dry
28-20-21 Boyles, Keys 1 ..... dry
14-21-20 Ewing, Peerless Oil of Kans. 19 90

Wells completed 30
Production 1620
Dry 7
Gas 3
Gas production 11,000,000

BUTLER COUNTY

9-26-6e Fuller, Polhamus & Smith 1... dry
27-27-7e Kruse, Amerada Pet. 4 250
Truesdale, Dixie Oil 1 450
Kruse, Phillips Pet. 2 75
Truesdale, Phillips Pet. 4 800
8-25-5e Wilson, Empire G. & F. 163 ... dry
12-26-6e Salathiel, Sanford et al 1 .... dry
32-26-7e Huntley, Hoyt et al 1 ..... dry
27-27-7e Kruse, Amerada Pet. 2 15
Kruse, Phillips Pet. 4 250
Truesdale, Phillips Pet. 5 400
32-27-7e Laughlin, Federal Oil 4 30
Laughlin, Lewis Oil 1 40
15-28-7e Elder, Atlantic Oil Prod. et al 1 90
25-27-4e Skaer, Magnolia Pet. 3 25
27-27-7e Truesdale, Phillips Pet. 3 400
Truesdale, Phillips Pet. 6 25
28-27-7e Anderson, Phillips Pet. 1 40
33-27-7e Laughlin, Federal Oil 3 200
33-29-8e Hanna, Roth & Co. 8 25
12-26-6e Teter, Manhattan Oil Corp. 1.. dry
33-27-7e Laughlin, Lewis Oil 2 65
20-28-6e Pettett, Connell et al 1 240
15-28-7e Sensenbaugh, Atlantic Oil 3.. dry
27-26-7e Wilhite, White Eagle O. & G. 3 100
16-26-8e Dickinson, Tidal & Gt. Southern 33 100
36-27-4e King, Empire G. & F. 16 .... dry
27-27-7e Tobler, Empire G. & F. 2 250
28-27-7e Iobe, Manhattan Oil 4 160
Iobe, Manhattan Oil 5 400
34-27-7e Blunt, Manhattan Oil 2 ..... dry
9-28-6e Lemon, Marland Oil 1 ..... dry
4-29-6e Werner, White Eagle et al 1 .. dry
23-29-6e Deichman, Garden et al 1 .... dry

Wells completed 35
Production 4670
Dry 11

CHAUTAUQUA AND ELK COUNTIES

3-32-10 McCown, Blackwell O. & G. 1.. 10
1-30-9e Thompson, Conely et al 1 .... dry
12-30-9e Donal, Glaiman & Barber 1.... 15
15-31-10 Webb, Sonner O. & G. 3 ..... dry
22-34-11 Huffman, The Prairie O. & G. 25 10
14-30-9e Howard, Sharpless et al 1 .... dry
22-31-9e Wilber, Empire G. & F. 1 ..... gas
1-32-10 Oliver, Griffeth, Bell et al 1.. gas
34-29-9e Denton, Denton Bros. 12..... gas
3-30-9e Denton, Elk Pet. Co. 6 15
14-31-10 Chaffine, Pure Oil 9 25
21-31-10 Miller, Neeley O. & G. 1 ..... dry
27-31-10 Walker, Theta Oil 5 45
7-31-11 Lawless, Gillespie 1 ..... dry
14-31-10 Webb, Southwest Gas Co. 11 .. 125
29-31-10 McCormick, Neeley O. & G. 1 dry
34-34-12 Chance, Inez Oil 10 12
3-34-11 Fee, H. R. Harshbarger 12 8

Wells completed 18
Production 265
Dry 6
Gas 3
Gas production 4,250,000

COWLEY COUNTY

1-31-3e Curry, Marland Oil 1 ..... dry
19-32-5e Bartlow, J. A. Hull 3 30
29-32-7e Bronson, W. H. Hammill 1 .... dry
22-34-3e Kimball, Roxana Pet. 1 ..... dry
16-35-4e Hollingworth., Muddy Oil 1 .... dry
32-30-5e Withers, Pottet & Banks 1... dry
6-30-8e Manhanna, Benedum & Trees 3 ..... dry
19-33-3e Holman, W. Phillips & Marland 3 75
21-33-3e Snyder, W. Phillips & Marland 2 175
29-33-3e Allison, W. Phillips & Marland 3 ..... dry
16-33-3e Hunt, Gypsy Oil 3 65
Thurlow, W. Phillips & Marland 8 125
7-35-3e Vickery, Roxana Pet. 1 ..... dry
31-30-6e Walker, Lewis Oil 1 ..... dry
20-31-5e Sickles, Roth & Farout 2 .... gas
24-32-4e Kukuk, W. A. Hull 15 75
7-32-5e Biddle, Ark., Fuel Oil 2 75
17-33-3e Watts, Wentz et al 2 150
21-33-3e Watts, Wentz et al 2 150
21-33-3e Nelson, W. Phillips & Marland 18 125
14-34-4e Messner, Rosenthrall 1 ..... gas

Wells completed 20
Production 845
Dry 9
Gas 2
Gas production 11,000,000

GREENWOOD COUNTY

12-22-10 De Malorie, Davis, Hazlett et al 12 870
20-22-10 Browning, Sinclair Oil 37 150
11-22-11 Kipfer, Empire G. & F. 11 125
33-22-11 Greenwood, Jennings et al 8 .. 100
4-22-12 Frankhouser, Simmons et al 2 280
Frankhouser, Simmons et al 3 200
24-23-8e Scott, Empire G. & F. 9 50
25-23-8e Craft, Taylor, Manhattan Oil 8 150
2-23-9e Shambaugh "B", Manhattan Oil 8 150
15-23-9e Bradford-Teter, Phillips Pet. 5 35
27-23-10 Thrall "B", Roth, Farout & Mission Oil 5 40
15-23-13 Schnieder, Shaffer & Howell 13 100
19-24-11 Linderman, Ritchey & Moore 1 20
1-22-10 Huntsinger, Connell et al 1..... dry
Fuller, Day et al 1 950
3-22-10 Pixlee, Transcontinental Oil 1 dry
12-22-10 De Malorie, Davis, Hazlett et al 13 1000
12-22-10 Austin, White Eagle O. & R. et al 1 80
13-22-10 Derbyshire, Pryor & Lockhart 6 dry
14-22-11 Fromme, Empire G. & F. 9 .. 125
3-23-13 Souder, Theta Oil 12 30
22-23-13 Shambaugh, Mid-Cont. Pet. 12 75
20-25-9e Ladd, Mid-Kansas Oil 7 125
29-22-10 Prather, Titus et al 9 300
14-22-11 Duby, Empire G. & F. 4 200
Killison, Empire G. & F. 7 .. 100
10-23-9e Green, Manhattan Oil 21 150
31-24-11 Wagner, Peerless Oil et al 1 .. dry
13-26-9e Life, Crown Central Pet. 1 ... 15
23-26-9e Weirahing, Beacon Oil 1 60
12-25-12 Gilroy, The Prairie O. & G. 1 .. dry
6-22-10 Atyeo, Kanson Oil 2 400
8-22-10 Pixlee, Mid-Kansas Oil 3 240
12-22-10 De Malorie, Davis, Hazlett et al 14 300
Warrensburg, Phillips Pet. 6 .. 100
Austin, White Eagle O. & R. 2 250
30-22-10 Prather, Phillips Pet. 4 75
33-22-11 Hillard, Phillips Pet. 7 50
26-23-8e Mosby, Phillips Pet. 3 35
4-23-11 Yeager, Skelly Oil 1 240
1-24-9e Marshall, Ark., Fuel Oil 14 .. 50
19-24-11 Wiggins "A", McGinnis et al 4 40
29-24-11 Lindamood, Murphy et al 2 .. dry
30-29-11 Wiggins "B", McGinnis et al 5 dry
12-25-8e Birkett, Roth & Farout 9 .... dry
19-25-9e Ladd, Mid-Kansas Oil 5 50
6-22-10 Atyeo, Empire G. & F. 5 100
12-22-10 Austin, Syndicate Oil 2 500
29-22-10 Prather, The Texas Co. 5 75
4-22-12 Fankhouser, Pulaski & Simmons 1 400
23-22-12 Broddick, Abel, Rhodes et al 1 dry
18-22-13 Ott, Empire G. & F. 33 100
19-23-9e Morris, White Eagle et al 6 .. 175
8-23-11 Holland, Pulaski et al 7 10
9-23-13 Lathrum, Haverhill Pet. 5 30
19-24-12 Ott, Mica Valley Oil 1 ..... dry
18-25-11 Diebert, Parkins et al 1 ..... dry
23-27-9e Lilly, Gillespie 1 ..... dry

Wells completed 59
Production 8765
Dry 12

LYON COUNTY

33-21-12 Lauck, Phillips Pet. 8 150
9-20-12 Flading, Gillespie et al 1 ..... dry
31-21-10 Atyeo, Sheedy et al 3 80
24-21-10 Rosellion, Super Six Oil 2 250
25-21-10 Bradford, McCollough et al 1. 1100
30-21-10 Atyeo, Transcontinental Oil 2.. 350
36-19-11 Estridge, Buck et al 1 ..... dry
12-20-10 Williams, Troxell et al 1 ..... dry
31-21-10 Atyeo, Sheedy et al 4 450

Wells completed 9
Production 2380
Dry 3

RUSSELL COUNTY

9-12-15w Oswald, Mid-West Refg. 13.. 160
Oswald, Mid-West Refg. 15.. 180
17-12-15w Oswald-Valerius, Valerius Oil 15 150
8-12-15w Oswald, Mid-West Refg. Co. 22 215
17-12-15w Munsell, Valerius O. & G. 1 175
Oswald-Valerius, Valerius O. & G. 16 200
18-12-15w Ed Oswald, Skelly Oil 4 150

Wells completed 7
Production 1230

MISCELLANEOUS COUNTIES

Chase County—
25-21-9e Atyeo, Dingee, Pryor & Lockhart 1 ..... dry
29-22-8e Bradley, White Eagle & Connell 1 ..... dry
32-18-7e Lipps, Preston & Pasewald 1.. gas
24-20-9e Newman, Derby & Braden 1 .. dry
19-21-6e Griffeth, Liggett et al 1 ..... dry

Labette County—
14-31-17 Sparks, Ark. Fuel Oil 1 ..... dry

Sumner County—
4-34-1w Welcher, Cosden Oil 1 ..... dry
24-32-2e Conrad, Slick et al 1 20
24-33-2e Holt, Phillips Pet. 2 430
24-34-2e Carpenberber, Marland Oil 1 .. dry

Woodson County—
23-33-13 Hessler, Marland & Christy 9.. 75

Wilson County—
32-30-16 Long, The Prairie O. & G. 16.. gas

Sedgwick County—
32-29-2w Nicholson, W. Phillips 1 .... dry

Osage County—
32-18-14e Rogers, McMahon & Leonard 1 ..... dry

Allen County—
22-25-21 Broughton, W. H. Noble et al 1 dry
Broughton, W. H. Noble et al 2 gas
28-25-21 Smith, Smoke Oil 7 ..... dry

Wells completed 23
Production 555
Dry 14
Gas 4
Gas production 4,150,000

Neosho County—
15-28-18 Flottman, Wells & Breyfogle 3 20
17-28-20 Bohner, Peru Kans. O. & G. 1. gas
Zindair, Peru Kans. O. & G. 1 dry
Bohner, Peru Kans. O. & G. 2 dry

Linn County—
26-20-21 Canady, Keys 1 ..... dry

Franklin County—
29-16-21 Gingrich, W. C. Hayhurst 11.. 10

BUTLER COUNTY
Rigs

8-26-6e Kimbell, Kismet Oil 1.
22-27-7e Tobler, Flack, Davidson et al 4.
Barnhill, Sinclair Oil 4.
27-27-7e Truesdale, Dixie Oil 3 , 4.
Truesdale, Phillips Pet. 7, 8.
16-28-6e Cotton, Magnolia Pet. 1.
17-28-6e Pettet, Phillips Pet. 1.
26-27-4e Safford, Safford et al 7.

Wells Drilling

20-23-4e Parris, Ark. River Gas 12.
14-23-7e De Ford, Ramsey Pet. 1.
30-23-7e Swively, Templeman, Frantz et al 1
29-25-5e Finny, Empire G. & F. 30.
22-25-7e Collins, Liggett et al 1.
32-26-6e Schoenrock, Sparta Drlg. Co. 2.
27-26-7e Wilhite, Connell Oil 3.
Wilhite, White Eagle O. & R. 4.
30-26-8e Drum Bitler, Abel et al 2.
Drum Bitler, Cowpuncher Oil 3.
35-27-4e Skaer, Empire G. & F. 15.
Starkey, Empire G. & F. 9.
5-27-6 Beedles, Branson et al 2.
7-27-6e Kistler, Gypsy Oil 1.
9-27-6e Tatum, Phillips Pet. 1.
36-27-6e Figge, Liggett et al 2.
22-27-7e Truesdale, The Texas company 3.
23-27-7e Barnhill, Mid-Kansas Oil 1.
27-27-7e Gruse, Amerada Pet. 5, 6.
Truesdale, Dixie Oil 2.
28-27-7e Iobe "A", Manhattan Oil 1.
31-27-7e Sears, Tidal Oil 1.
33-27-7e Laughlin, Federal Oil 5, 6, 7.
Laughlin, Lewis Oil 3.
34-27-7e Bateman, Dixie Oil 1.
3-28-6e Blankinship, Allison & Fitzwilliams 1.
13-28-6e McCraig, Farr et al 1.
21-28-6e Pettet, Mid-Kansas Oil 1.
22-28-6e Pettet, Connell et al 1.
34-28-6e Powell, Manhattan Oil 1.
34-29-4e Bursh, Smith, Ash et al 1.
19-29-5e Sutton, Shawver et al 1.
17-29-7e Brown, White Eagle et al 1.

Wells Shut Down

19-23-8e Sturgeon, Tom Miller et al 1.
31-23-8e Walkinshaw, Manhattan Oil 1.
36-24-4e Barkmyer, Robinson et al 1.
29-24-7e Potts, Manhattan Oil 1.
29-25-4e Varner, Tatlock & Vickers Pet. 1.
12-26-7e Kiser, Neeley O. & G. 1.
19-26-8e Hoge, Leighty & Martin 1.
24-27-4e Weidline, Weidline et al 1.
33-27-5e Clark, Neeley O. & G. 1.
12-29-6e Kenneyon, Tobin et al 1.
3-29-7e Arnold, Landon et al 1.
Rigs, 10; wells drilling, 48; total, 58.

CHAUTAUQUA AND ELK COUNTIES
Rigs

21-32-11 McCarty, Robinson et al 1.
3-20-12 Willard, Theta, Oil 2.
27-31-10 Walker, Theta Oil 1.
20-31-11 M. La Ville, Gillespie 1.

Wells Drilling

22-34-11 Huffman, The Prairie O. & G. 26.
12-29-8e Porter, Roth & Co. 14.
11-30-11 Finley, Manhattan Oil 1.
11-31-10 Glasscock, Southwestern Gas 1.
13-31-10 Webb, Pure Oil 6.
26-31-10 Walter, Theta Oil 1.
36-31-10 Warren, Denman Brothers et al 1.
28-32-10 McAllster, Craft et al 3.
5-33-9e Garr, Brouck et al 1.
20-34-9e Berrum, Leighty et al 1.

Shut Down

11-32-10 Jeanneret, Griffeth, Sueb Oil 1.
7-32-11 Chaffine, Mitchell, Frazier et al 1.
7-33-10 Briggs, Noble O. & G. 1.
4-29-9e Britton, Tolbot & McCollough 1.
19-31-9e Newbecker, Anglo-Texas Oil 2.
21-31-10 Miller, Benge & Wilson 1.
35-31-11 Ayers, Abel, Byington et al 1.
Rigs, 4; wells drilling, 17; total, 21.

COWLEY COUNTY

2-31-4e Goodrich, Twin State Oil 1.
19-32-3e Waite, Carter Oil 10.
25-32-4e McFadden, Buckeye Oil 3.
3-32-5e Elrode, Empire G. & F. 3.
7-32-5e Crosbie, Ark. Fuel Oil Co. 5.
28-33-3e Caldwell, W. Phillips & Marland 12.
20-34-3e Surtz, Wilt & Shawver 1.

Wells Drilling

7-30-6e White, Branson et al 1.
28-30-8e Ferguson, Hazlett et al 1.
10-31-3e Smith, Benedum & Trees 5.
Shaffer, Benedum & Trees 5.
6-31-6e Eastman, Southwestern Pet. 11.
19-32-3e Carson "A", T. B. Slick 3, 6.
Waite, Carter Oil 9.
15-32-4e School land, J. A. Hull 1.
24-32-4e Shannon, Gypsy Oil 8, 9.
Wallace, J. A. Hull 15
25-32-4e Leirman, Gypsy Oil 1.
15-32-5e Serot, Roth & Farout 1.
18-32-5e Barnette, Gypey Oil 1.
19-32-5e Boyd, Duffield et al 3.
5-33-3e Oles, Marland Oil 1.
16-33-3e Hunt, Gypsy Oil 2.
36-33-4e Seacat, Roxana Pet. 1.
4-33-7e Reynolds, Forrester et al 1.
7-33-7e Riding, Brown Brothers 1.
18-33-7e Smith, Doric Oil 1.
5-34-3e Martin, Gypsy Oil 1.
16-34-3e Chapman, Roxana Pet. 2.
15-34-4e Pollock, Bunnell et al 1.
16-34-5e Hunt, Phillips Pet. 1.
24-34-6e Day, S. H. E. Pet. 1.
20-34-8e Burkett, Watchorn O. & G. 1.
5-35-5e Stearling, Springstead & Overlease 1

Shut Down

14-30-6e Hulmes, Gray, Hewey et al 1.
4-31-5e Elliott, Boxer et al 1.
24-32-4e Lewis, J. A. Hull 3.
24-33-6e Sandstrum, Little Martha Oil 2.
16-34-3e Chapman, Roxana Pet. 3.
18-35-3e Gally, Roxana Pet. 1.
Rigs, 7; wells drilling 35; total, 42.

GREENWOOD COUNTY

1-2-10 Fuller, Day et al 2.
8-22-10 Pixlee, Mid-Kansas Oil 4.
12-22-10 De Malorie, Manhattan Oil 6.
Austin, White Eagle et al 3.
20-22-10 Prather "A", Skelly Oil 2.
29-22-10 Prather, The Texas Co. 7, 8.
Prather, Titus et al 4, 8, 25.
11-22-11 Hind, Empire G. & F. 7.
14-22-11 Duby, Empire G. & F. 5.
18-22-11 Clopton, Simmons et al 2.
19-22-11 Harris, Selby Oil 3.
Harris, Simmons et al 4.
33-22-11 Hillard, Phillips Pet. 6.
4-22-12 Fankhouser, Lamar & Hayne 1.
Fankhouser, Simmons et al 8.
Fankhouser "B", Simmons et al 3.
Fankhouser "C", Pulaski & Simmons 2.
Fankhouser, The Texas company 1.
5-22-12 Chandler, Phillips Pet. 2.
24-23-8e Mosby, Phillips Pet. 4.
1-23-9e Shambaugh, White Eagle 1.
15-23-9e Bradford-Teter, Phillips Pet. 6.
Teter, Skelly Oil 6.
19-23-9e Morris, White Eagle et al 7.
23-23-9e Teter, Emerald Oil 2.
27-23-10 Thrall "B", Roth, Farout & Manhattan 7.
4-23-11 Yeager, Skelly Oil 2.
26-23-11 Ellis, Simmons & Amerada Pet. 2.
3-23-12 Motar, Simmons et al 1.
8-23-13 Souder, Theta Oil 13.
15-23-13 Shadel, Mid-Cont. Pet. 8.
19-24-11 Lindamood, Ritchey, Moore & White Eagle 2.
30-24-11 Wiggins "C", McGinnis et al 3, 4.
20-25-9e Ladd, Mid-Kansas Oil 8, 9.
24-26-9e Weirshing, Beacon Oil 4.
27-26-9e Duke, Smith & Wahn 1.

Wells Drilling

12-22-10 Fechter, The Prairie O. & G. 1.
1-23-9e Shambaugh, The Prairie O. & G. 2.
7-27-13 Friend, The Prairie O. & G. 1.
16-24-13 Blackwell, The Prairie O. & G. 4.
1-22-10 Fuller, Day et al 1.
6-22-10 Atyeo, Empire G. & F. 6.
Atyeo, Kanson Oil 3.
7-22-10 Evans, Miss. Valley Oil 1.
9-22-10 Pixlee, Theta Oil 9.
12-22-10 De Malorie, Davis, Hazlett et al 15, 16.
Austin, Syndicate Oil 3.
19-22-10 Browning, Sinclair Oil 38.
20-22-10 Browning, Sinclair Oil 39.
29-22-10 Prather, The Texas company 6.
Prather, Titus et al 3, 13, 14, 20.
30-22-10 Prather, Titus et al 3.
11-22-11 Kipfer, Empire G. & F. 12.
14-22-11 Fromme, Empire G. & F. 8.
15-22-11 Pees, Empire G. & F. 6.
18-22-11 Clopton, Mid-Cont. Pet. 8, 9.
32-22-11 De Malorie "C", York State Oil 2, 3.
33-22-11 Westcott, York State Oil 2.
3-22-12 Jeanette, Lamar & Haune 1.
4-22-12 Fankhouser, Fisher, Lauck et al 2.
Fankhouser, Simmons et al 4, 5.
5-22-12 Jones, Phillips Pet. 1.
9-22-12 Holderman, Darby et al 1.
28-22-12 Fankhouser, Simmons et al 1.
27-22-13 Miller, Braden Brothers et al 11, 12.
25-23-8e Dales "B", Manhattan Oil 8, 10.
1-23-9e Skelly-Shambaugh, Skelly Oil 3.
2-23-9e Shambaugh, Manhattan Oil 6.
9-23-9e Noler, Tom Conway et al 1.
10-23-9e Green, Manhattan Oil 22.
11-23-9e Green, McGinnis et al 2.
15-23-9e Green, Skelly Oil 2.
16-23-9e Teter, Empire G. & F. 34.
19-23-9e Morris, Empire G. & F. 4.
Morris, Manhattan Oil 6.
15-23-10 Burgess, Roth & Faurot 1.
23-23-10 Allen, Mid-Kansas 27.
26-23-10 Mason, Pure Oil 7.
29-23-19 Thrall, Roth, Faurot & Manhattan 23.
9-23-11 Tiffany, Simmons et al 3.
28-23-13 Dehlinger, Mid-Cont. Pet. 2, 4, 5.
1-24-9e Cartwright, Roth, Faurot & Mission 10.
34-24-9e Marshall, Roxana Pet. 7.
23-24-10 Edwards, John Edwards et al 1.
32-24-11 Garrison, Polhamus et al 1.
16-24-13 Blackwell, Rhodes & Abels 4.
17-24-13 Hinchman, Davis et al 1.
6-25-9e Oleson, Lassen et al 1.
35-25-10 Clark, White Oil 2.
10-26-8e Hull, Kinney Refg. 7.
13-26-8e Dunlap, Tom Miller et al 1.
23-26-9e Birkett, Continental Oil 2.
Weirshing, Price et al 2.
14-26-11 Jackson, Smith & Ash 2.
26-27-8e Lewis, Roth & Faurot 1.
2-28-11 Schultz, McCollough et al 1.

Shut Down

27-22-10 Brown, Neeley O. & G. 1.
3-29-9e Noler, Knight et al 1.
4-23-11 Yeager, White Eagle 1.
26-24-9e Wiggins, Polhamus et al 4.
15-24-11 Short, Loy et al 1.
31-24-13 Cornish, Christy et al 3.
9-25-9e Coulter, Lewis Oil 2.
28-25-10 Huntington, Hoy & Starkey 1.
22-26-9e Duke, Smith, Carlson & Marshall 2.
8-27-10 Neubratch, Morgan et al 1.
Rigs, 44; wells drilling, 82; total, 126.

KINGMAN COUNTY
Rigs

22-28-5w Linclon, Harwood & Winters 1.
35-30-9w Kelming, Vickers & Stearns 1.

Wells Drilling

9-27-6w Hempel, Phillips Pet. 1.
15-27-7w Herman, T. B. Slick 1.
16-27-7w Richardson, Fleeger & Carter Oil 2.
25-27-7w Wilkinson, Allison & Fitzwilliams 1
31-28-5w Beshare, Crawford & McKenna 1.
35-28-7w Yoeman, Casoday Oil 1.
16-28-8w McKenna, Phillips Pet. 1.
4-30-6e Richards, Ozark Drlg. Co. 1.

Shut Down

13-28-7w Greenleaf, Fleeger et al 1.
Rigs, 2; wells drilling, 9; total, 11.

LYON COUNTY
Rigs

33-17-11 Garr, Reed et al 1.
28-17-12 Phillips, Skow Brothers et al 1.
32-18-10 Bender, Ritchey & Moore 1.
25-19-11 Bibermyer, Culp et al 1.
32-20-10 Flyer, Sheedy et al 1.
7-21-10 Richards, Sheedy et al 1.
30-21-10 Jones, Theta Oil 1.
Atyeo, Transcontinental Oil 3, 4, 5.
31-21-10 Atyeo "A", Transcontinental Oil 1, 2.
Atyeo, Sheedy et al 6.
18-21-12 Welch, Parkening et al 1.
29-21-12 Tile, Swartz et al 1.

Wells Drilling

5-21-10 Ewers Ranch, The Prairie O. & G. 1
6-16-12 Putman, Manhattan Oil 1.
11-17-12 Chatterton, Double A Oil 1.
23-18-10 Ball, Connell et al 1.
22-18-12 De Long, Abel, Finney et al 1.
5-19-11 Parker, Culp et al 1.
32-19-11 Roberts, Abel, Finney et al 1.
33-19-13 Heaton, Balliere et al 1.
5-20-10 Newman, Buck et al 1.
18-20-12 Slischer, Marland Oil 1.
22-20-12 Welch, Connell et al 1.
7-20-13 Evans, Haverland et al 1.
19-21-10 Morris, Sheedy et al 1.
30-21-10 Jones, Transcontinental Oil 1.
31-21-10 Atyeo, Sheedy et al 5.
34-21-10 Pixlee, Ritchey & Moore 6.
35-21-10 Voorhees, Southwest Pet. 1.
4-21-11 Langley, Miss. Valley Oil 1.
11-21-11 Hathway, Fisher, Lauck & Moore 1.
31-21-11 Huntsinger, Rhodes, Parkins et al 1
33-21-12 Hally, Phillips Pet. 1.
Lauck, Phillips Pet. 9.
29-21-13 Sheppard, Phillips Pet. 1.

Shut Down

21-16-10 Frontiman, Ramsey et al 1.
20-19-12 Breckiman, Denton & Ossenbach 1.
24-20-10 Stillwell, Garden, Staats et al 1.
25-20-11 Neuusen, Miss. Valley Oil 1.
Rigs, 15; wells drilling, 27; total, 42.

MONTGOMERY COUNTY

Wells Drilling

9-34-14 Eaton, Gillespie 1.
28-34-14 Owens, Phillips Pet. 1.
12-35-16 Wilson, Tex-O-Kan Oil 1.

Shut Down

21-31-14 Faler, Remler et al 1.
21-32-13 Nelman, Dunn et al 1.
36-32-14 Dryhead, Iriah et al 1.
5-32-16 Brinkman, Cowell et al 1.
35-32-16 Wyberger, Bloom et al 1.
29-32-11 Hellum, Earl & Overlease 1.
35-33-16 Felts, Voice & Tabor 1.
4-33-17 Hall, Townsend et al 1.
30-33-17 Bunk, Brown & Wolfe 1.
4-35-17 Walker, Gallowye & Roberts 1.
Wells drilling, 19; total, 13.

RICE COUNTY
Rigs

2-19-10w Hoilscher, Sparta Drlg. Co. 1.

Wells Drilling

34-20-6w Wood, The Prairie O. & G. 1.
35-20-6w Miller, The Prairie O. & G. 2.
Welch, The Prairie O. & G. 2, 1.
Welch, Wilcox O. & G. 1.
2-21-6w Jacobson, United Refg. Co. 1.
Walstein, Youker et al 2.
17-21-6w Brothers, Streeter & Stearns 1.

Shut Down

1-19-7w Deed, Pryor & Lockhart 1.
21-20-6w Barnes, Stamey et al 1.
26-20-6w Johnson, Midland Oil 1.
Rigs, 1; wells drilling, 11; total, 12.

RUSSELL COUNTY

Wells Drilling

13-11-13w Pospishal, Krueger et al 1.
32-11-15w Dodge, Derby Oil et al 3.
Booth, Snowden & McSweeney 3.
5-12-15w Kollman, T. C. Johnson 7.
8-12-15w Oswald, Mid-West Refg. 16, 18, 19.
17-12-15w Munsell, Valerius O. & G. 2.
Oswald-Valerius, Valerius O. & G. 17, 18.
18-12-15w Mermis, Valerius O. G. 1.
30-12-15w Austin, Mid-West Refg. 1.
Wells drilling, 12; total, 12.

SUMNER COUNTY
Rigs

25-31-2e Churchill, Roxana Pet. 1.
9-23-2e Wright, Marland Oil 1.

Wells Drilling

34-34- 2 Post, The Prairie O. & G. 1.
36-30-2w Riner, Cosden Oil 1.
17-32-2e Miller, W. Phillips & Roxana 1.
21-33-2e Rutter, Roxana Pet. 1.
24-33-2e Holman, Marland Oil 2.
Holt, Phillips Pet. 3.
Holt, Sinclair Oil 1, 2.
27-33-2e Spain, Marland Oil 1.
Schwartz, Wentz et al 1.

Shut Down

35-31-4w Stewart, Sparta Drlg. Co. 1.
Rigs, 2; wells drilling, 11; total, 13.

MISCELLANEOUS COUNTIES
Rigs

Chase County—
9-21-8e Sharp, Crandall, Murta et al 1.
36-22-8e Frew, Taylor et al 1.
24-22-8e Eastman, Skelly Oil 1.
36-22-9e Shambaugh, Mid-Kansas Oil 3.

Coffey County—
2-20-13 Milner, Terrian, Balliere et al 1.
25-20-14 Stuart, Connell et al 1.

Comanche County—
23-31-18w Starlock, I. M. Rupard et al 1.

Graham County—
17-10-24w Baker, Gruin & Shirler 1.

Harper County—
22-34-6e Caton, Bu-Vi-Bar 1.
28-31-9w Muir, Wakefield et al 1.

Marion County—
33-20-5e Wiley, Stewart et al 1.
24-21-4e Allison, Sheedy et al 5.

Morris County—
32-14-7e Barber, Kline et al 1.

Ness County—
35-16-21w Ryersee, Bell & Sarton 1.

Pottawatomie County—
17- 9-12 Stewart, Crawford et al 1.
31- 9-12 Bratchbar, Crawford et al 1.

Reno County—
36-24-7w Pexroad, Miss. Valley Oil 1.
9-25-7w High, Cassoday Oil 1.

Wells Drilling and Shut Down
(Shut down wells indicated by*)

Barber County—
14-30-12w Kumburg, R. D. Rood et al 1*.
30-30-14w Richardson, Skelly Oil et al 1.
35-32-14w Ott, Vickers & Miller 1.
14-34-11w Martin, B. B. Brown et al 1*.

Barton County—
22-18-13w Everleigh, John Herron 1*.
17-19-11w Smith, Huffine et al 1.

Chase County—
16-20-7e Nichols, Vickers Pet. 1.
5-21-8e Ray, Denton et al 1.
14-22-9e Evans, Dingee, Callahan et al 1.

Cloud County—
6- 6-4w Murdock, Concordia O. & P. Co. 1*.

Coffey County—
26-20-13 Kensel, Basom et al 1*.
1-20-14 Jones, Bucher et al 1.
18-21-14 Wilson, Kimbley Pet. 1.
25-2-14 Reed, Peerless Oil 1*.

Edwards County—
7-23-19w Noberwell, Edwards County Pet. 1*.

Ellsworth County—
24-14-7w Walker, United Refg. 1*.
6-14-9w Kasper, John Herron et al 1*.
3-16-8w Herman, Wrightsman 1.

Franklin County—
17-16-18e Owens, Smith, Thrice & Fisher 1*.

Geary County—
18-11-5e Stinford, Kirby & Wright 1*.
9-12-6e Wright, Liberty Texas Oil 1*.
30-13-6e Foster, Liberty Texas Oil 1*.

Graham County—
23- 8-24w Taxon, Keys Brothers & Marine 1*
27- 8-25w St. Johns, Gulf Coast Drlg. Co. 1*.

Harper County—
19-32-5w Burk, Berry Pet. 1.

Harvey County—
27-22-2e Symons, Watchorn O. & G. 1.

Hodgeman County—
19-21-22w Frizell, Spencer & Marconnette 1.

Jefferson County—
13- 9-19 Edwards, Northern Counties 1*.

Labette County—
26-32-17e Wilks, Ark. River Gas 1*.
1-32-20 Thurman, Noble O. & G. 1*.
33-32-20 Burnes, W. C. Willy 1*.
1-33-17 Hornbeck, Cowell et al 1*.
5-35-20 Lipps, Wantland et al 1*.

Lane County—
11-18-27w Dickinson, Richards Refg. 1.
Lincoln County—
19-11-6w Stone, Scott & Collins 1*.
22-11-6w Lewis, Pope & Powell 1*.
36-13-7w Paul, United Refg. 1*.
Logan County—
14-14-33w Meffatt, Coon et al 1*.
McPherson County—
3-18-2w Anderson, Fowler et al 1.
29-18-2w Anderson, Waugh & Casey 1.
Marion County—
8-19-4e Troup, Troup et al 1*.
29-19-5e Collins, Frank Allen et al 1.
17-21-4e Waner, National Refg. 3.
24-21-4e Jones, Sheedy et al 1.
32-21-4e Equity, Morgan et al 1*.
1-22-3e Colbeck, Cameron Brothers 1.
Mitchell County—
10- 7-10w Kyle, Marland Oil 1.
Morris County—
18-16-5e Rogers, Derby Oil 1.
21-17-7e Welcher, Bowmand & Jones 1*.
24-17-9e Cessman, Rock Creek Oil 1*.
Nemaha County—
19- 3-11 Myers, Nemaha O. & G. 1*.
Osborn County—
10- 7-12w Turner, Beasley 1*.
9-10-24w Beeley, Knight et al 1*.
Osage County—
3-15-15 Lease, Barber et al 1*.
27-15-16e Bailey, West et al 1*.
8-17-17 Neil, Mull Vit. Dev. 1*.
Phillips County—
15- 5-16w McQueen, Curtis & Frost 1.
13- 5-18w McKinley, Phillips Pet. & Prairie 1
Pottawatomie County—
11-10-12 St. Marys, Crawford et al 1*.
Reno County—
10-23-4w Magnuson, Sheldon et al 1*.
5-26-4w Williams, Travis et al 1*.
30-26-6w Demoret, Tatlock et al 1.
7-26-7w Stevens, Hopper et al 1.
Rice County—
26-10-6e Marks, Pawnee O. & G. 1.
20-10-7e Thierer, Youker & Douglas 1*.
Rooks County—
7- 8-20w Saindon, Keys Pet. 1*.
25-10-19w Minx, Findiess et al 1.*
Rush County—
10-18-16w Moore, Morgan & Downing 1*.
Saline County—
29-14-2w Davis, L. S. Johnson et al 1*.
26-15-2w Shallion, Brown & Woodward 1*.
15-15-4w Holquest, Thrall et al 1*.
Sedgwick County—
6-25-1e Poff, Boyle, Tack & Preston 1*.
9-25-2e Harrison, Smith & Keller 1*.
34-26-1e Jaden, Wichita O. & G. 1*.
1-26-2e Mills, Lamson et al 1*.
7-27-1e Custer, Chastain & Chastain 1.
2-29-2e Fleming, Higgins 1*.
17-29-1e Howell, Carr, Hartman & Skaer 1.
Stafford County—
23-21-11w Sifers, King & Lanston 1*.
24-22-11w Richardson, Randall & Johnson 1*
Wabaunsee County—
15-13-12 Henderson, Williams et al 1*.
29-14-11 Young, White Drlg. Co. 1*.
Wallace County—
12-13-39w Wufkuler, J. Allen Harvey 1*.
Wilson County—
22-28-13 Thompson, Price et al 1*.
32-30-16 Long, The Prairie O. & G. 17.
29-30-17 Smaily, West & Williams 1*.
Woodson County—
32-23-14 Headley, Pure Oil 14.
6-25-14 Louder, Kirk et al 1.
13-25-14 Hunt, Alters et al 1*.
13-26-14 Daniels, Burford & Brim 1*.
23-26-14 Town, Peerless O. & R. 2.
Rigs, 18; wells drilling, 91; total, 109.

NORTH CENTRAL TEXAS

County—	Comp.	Prod.	Dry	Gas
Wichita	46	760	22	0
Wilbarger	32	1,695	9	0
Archer	119	6,140	46	0
Young	26	795	10	0
Hutchinson	11	4,605	0	1
Stephens	4	20	0	2
Eastland	13	100	5	2
Brown	56	7,439	19	1
Reagan	4	5,376	0	0
Coleman	13	1,005	5	2
Mitchell	5	535	0	0
Montague	14	963	1	1
Shackelford	11	1,101	6	1
Palo Pinto	3	200	2	0
Loving	1	0	1	0
Clay	4	45	3	0
Baylor	3	10	1	0
Gray	1	380	0	0
Callahan	3	15	2	0
Cooke	1	0	1	0
Jack	1	50	0	0
Scurry	1	10	0	0
Upton	5	195	2	0
Crockett	3	1	1	0
Foard	1	0	1	0
Throckmorton	3	432	0	0
Tom Greene	1	0	1	0
Crane	1	90	0	0
Potter	1	0	0	1
Carson	2	1,900	0	1
Howard	1	325	0	0
Sterling	1	0	1	0
Total April	387	33,287	139	12
Total March	500	35,483	201	11
Difference	113	2,196	62	1

Summary of Rigs and Wells Drilling

County—	Rigs	Drg.	Ttl.
Wichita	2	52	54
Archer	21	75	96
Wilbarger	10	87	97
Young	3	22	25
Stephens	11	45	56
Eastland	11	19	30
Brown	17	86	103
Coleman	7	38	45
Callahan	4	18	22
Mitchell	4	14	18
Hutchinson	36	118	154
Shackelford	6	33	39
Reagan	4	33	37
Miscellaneous	32	219	251
Total April	168	859	1,027
Total March	58	423	481
Difference	110	436	546

Summary of Rigs and Wells Drilling

Counties:	Rigs.	Drg.	Ttl.
Throckmorton	0	4	4
Haskell	0	2	2
Stonewall	0	4	4
Kent	0	1	1
Garza	0	4	4
Lynn	0	1	1
Gaines	0	1	1
Scurry	0	3	3
Fischer	0	1	1
Jones	0	3	3
Sherman	2	0	2
Roberts	0	1	1
Moore	0	4	4
Potter	0	1	1
Carson	4	11	15
Gray	1	5	6
Wheeler	3	3	6
Collingsworth	0	1	1
Swisher	0	1	1
Hall	0	1	1
Montague	1	15	16
Cooke	0	5	5
Fannin	0	3	3
Denton	0	1	1
Wise	0	2	2
Jack	2	11	13
Hardeman	0	2	2
Foard	0	2	2
Cottle	0	1	1
Taylor	0	1	1
Knox	0	2	2
Baylor	0	5	5
Clay	2	11	13
Palo Pinto	0	10	10
Parker	0	2	2
Erath	1	2	3
Taylor	0	2	2
Howard	1	5	6
El Paso	1	1	1
Culberson	1	1	2
Winkler	0	1	1
Ector	1	0	1
Midland	0	2	2
Glasscock	0	2	2
Sterling	1	5	6
Ccke	0	1	1
Reeves	0	3	3
Jeff Davis	0	2	2
Pecos	1	9	10
Crockett	6	16	22
Schleicher	1	0	1
Sutton	0	1	1
Val Verde	1	5	6
Terrell	0	1	1
Brewster	0	1	1
Presidio	0	1	1
Hudspeth	0	1	1
Comanche	0	3	3
Concho	0	2	2
Tom Green	1	2	3
Irion	0	2	2
Upton	1	15	16
Crane	1	7	8
Ward	0	1	1
Total	32	219	251

COMPLETIONS
WICHITA COUNTY

Jennings, Billington et al 15 95
Waggoner Brothers, Culbertson et al 36 30
Waggoner Brothers, Hammon 36 20
Oberby, Haynes et al 30
Beaver, Perkins 8 120
Nance, Ryan Petroleum Co. 57 10
Nance, Ryan Petroleum Co. 58 25
Edgerly, Texhoma Oil & Refg. Co. 1-C dry
Waggoner Brothers, Texhoma Oil & Refining Co. 16 15
Harton, C. W. M. Oil Co. 10 ..... dry
Harton, C. W. M. Oil Co. 11 5
Harrell, Jeffers et al 1 ..... dry
Waggoner, Empire Gas & Fuel Co. 12-A dry
Burnett, Moore et al 7 25
Danglos, Petroleum Products Co. 2 20
Powell, Ridgeway et al 5 25
Hines, Staley Co. 3 20
Danglos, Texhoma Oil & Refg Co. 1 .. dry
A. & K. Underwood Drlg. Co. 1 ..... dry
Crudup, Maer & Stanforth 1 ..... dry
Chilson, E. J. Stump Co. 1 ..... dry
Dutton, E. J. Stump Co. 2 ..... dry
Waggoner, Bridwell et al 2 ..... dry
Sheldon, Cochran & Myers 1 ..... dry
Waggoners, Culbertson & Co. 37 25
Burnett, E. A. Dale et al 10 20
Waggoner, Humble Oil & Refg. Co. 2 .. 20
Rio Bravo, Magnolia Petroleum Co. 54 100
Hines, Staley & Winne 4 ..... dry
Waggoner, Texhoma Oil & Refg. Co. 1 .. 25
Douglas, Texhoma Oil & Refg. Co. 1 .. dry
Waggoner, Texhoma Oil & Refg. Co. 17 dry
Friberg, Hammon et al 1 ..... dry
Daume, Boller & Wolfe 1 ..... dry
Jennings, Bullington & Lee 5 30
Jennings, Bullington & Lee 16 35
Waggoner, Culbertson & Hunter 3 ..... dry
Jennings, Dale Oil Corp. 23 30
Waggoner Brothers, D; Humble Oil & Refg. Co. 1 ..... dry
Mitchell-Waggoner; Humble Oil & Refg. Co. 2 15
Kelly, Magnolia Pet. Co. 1 ..... dry
Long, Perkins & Cullum 1 ..... dry
Allen & Kemp, Petroleum Products Co. 20 15
Chilson, W. A. Plummer 7 5
Mitchell, Texhoma Oil & Refg. Co. 3 dry
Nance, F. A. Weaver agent 1 ..... dry

Wells completed 46
Production 760
Dry 22

WILBARGER COUNTY

Sigler, Atlantic O. P. Co. 3 25
Waggoner, Humble O. & R. Co. 1 65
Waggoner, Landreth Prod. Co. 7 400
Waggoner, Landreth Prod. Co. 4-D .... dry
Waggoner, Landreth Prod. Co. 5-F 60
Waggoner, Landreth Prod. Co. 2-G 150
Waggoner, Landreth Prod. Co. 2-H 10
Waggoner, Landreth Prod. Co. 2-M 10
Waggoner, Magnolia Pet. Co. 52 ..... dry
L. Waggoner, Milham Corp. 1 45
Waggoner, Humble O. & R. Co. 5-G 60
Waggoner, Milham Corp. 2-A 25
Waggoner, Phillips Petroleum Co. 3-G.. 150
Waggoner, Phillips Petroleum Co. 1-HH 100
Waggoner, Phillips Petroleum Co. 3-NN 130
Waggoner, Prairie Oil & Gas Co. 2-A .. 100
Bord, Staley et al 13-A 20
Lloyd, Winnipeg Oil Co. 1 ..... dry
Bond, Meadows & Barkley 2 ..... dry
Waggoner, Humble O. & R. Co. 3-K 70
H. & T. C., Magnolia Pet. Co. 71 38
Piper, Magnolia Pet. Co. 48 ..... dry
Waggoner, Phillips Pet. Co. 5-CC 35
Waggoner, Roxana Pet. Corp. 6-A 75
Zipperle, The Texas company 1 ..... dry
Stephens, Barkley & Meadows 11-A .... dry
Stephens, Barkley & Meadows 7-B 30
Stephens, Empire Gas & Fuel Co. 35 .. 30
Waggoner, Humble O. & R. Co. 1-L .. dry
Waggoner, Phillips Pet. Co. 1-EE 32
Waggoner-Eslick, Shamrock Oil Co. ... dry

Wells completed 32
Production 1695
Dry 9

ARCHER COUNTY

Curry, Aschcraft et al 1 ..... dry
Jackson, Burns et al 1 50
McCrory, Dixie Oil Co. 1-D ..... dry
Wilson, McCarty Oil Co. 23-B 70
Wilson, Shappell Oil Co. 1-A 35
Tuberville, The Texas company 1-B ... dry
Carter, The Texas company 11 5
Parrish, Texhoma Oil & Refg. Co. 2-A. 50
Griffin, Tidal Oil Co. 1 ..... dry
Portwood, American Refg. Co. 7 10
Ward, E. S. & B. Oil Co. 1 ..... dry
Bell, Camp Oil & Gas Co. 1 ..... dry
Oldham, Cosden & Co. 1-B 260
Hamilton, Humble Oil & Refg. Co. 6 .. 25
Wolf, Humble O. & R. Co. 1 75
Prideaux, Ilsing Prod. Co. 1 ..... dry
Loew, Magnolia Pet. Co. 14 30
Kunkel, M. & V. Oil Co. 6 35
Young, Pandem Oil Co. 5 70
Kreger, Prairie Oil & Gas Co. 5 5
Wolf, Primrose Pet. Co. 7 50
Dekinder, Red Bank Oil Co. 1 ..... dry
Abercrombie, Texhoma O. & R. Co. 5 .. 10
Beardon, The Texas company 7 135
Hill, The Texas company 19 20
Hill, The Texas company 20 30
Prideaux, The Texas company 2 5
Jackson, American Refg. Co. ..... dry
Albright, Barnsdall Oil Co. 1 ..... dry
Wilson, Barnsdall Oil Co. 15-B 80
Brown, Barnsdall Oil Co. 15-B 80
Brown, Burns et al 6 ..... dry
Ferguson, Houghton et al 20-A ..... dry
Ruthey, Magnolia Pet. Co. 6-A 5
White, Panhandle Refg Co. 1 5
Morwitz, Fred Phillips 1 ..... dry
K. & K., E. J. Staley 1-H 40
K. & K. E. J. Staley 2-H 60
Parrish, E. J. Staley 5-A 65
Parrish, E. J. Staley 8-B 40
Wilson, The Texas company 33-B 15
Wilson, Woods et al 1-A 10
Oldham, Atlantic O. P. Co. 2 30
Rachburg, Atlantic O. P. Co. 3 95
Reames, Consolidated Oil Co. 1 ..... dry
Coody, Consolidated Oil Co. 2 10
Oldham, Cosden-Consolidated Co. 3-A . 125
Lauster, Golding Co. 2 ..... dry
Prideaux, Ilsing Prod. Co. 1 ..... dry
Harris, Murchison & Fain 1 ..... dry
Kreiger, Prairie Oil & Gas Co. 6 5
Jeske, The Texas company 5 485
Oldham, Texhoma O. & R. Co. 13 115
Oldham, Texhoma O. & R. Co. 14 380
Wolf, Texhoma O. & R. Co. 6 ..... dry
Wolf, Texhoma O. & R. Co. 2-B 60
Kreeger, Texas Unity Oil Co. 1 ..... dry
Wilson, Barkley & Meadows 23 60
Jackson, Burns & Maxson 4 ..... dry
Parrish, Chenault et al 2 35
Wilson, T. G. Lomax, Jr., 1 ..... dry
Wilson, McCarty Oil Co. 9 25
Wilson-McCrory, Pace et al 1 ..... dry
Mangold, Roxana Pet. Corp. 1 ..... dry
Hamilton, Texhoma O. & R. Co. 8 53
Portwood, American Refg. Co. 8 5
Bell, Camp Oil Co. 2 ..... dry
Cowan estate, R. I. Carter 4 700
Oldham Cosden-Consolidated Co. 4 700
Oldham, Cosden-Consolidated Co. 2 .... dry
Oldham, Cosden-Consolidated Co. 3 .... dry
Isham, Craig & Wilson 1 ..... dry
Tuberville, Cretah & Meaders 1 ..... dry
Halley, Decker et al 1 ..... dry
Rogers, Fisher & Gilliland 9 96
Connor, Golding & Cochran 1 ..... dry
Hamilton, Humble O. & R. Co. 7 100
Wolf, Humble O. & R. Co. 2 300
Prideaux, Ilseing Prod. Co. 2 5
Lowe, Magnolia Pet. Co. 21 10
Portwood, Magnolia Pet. Co. 10 25
Prideaux, Pandem-Simms Co. 13 60
Wolf, Pioner & Beardsley 2 8
Cockrell, Roxana Pet. Corp. 2 ..... dry
Cockrell, Roxana Pet. Corp. 3 22
Beardon estate, The Texas Company 8. 165
Wolf, Texhoma O. & R. Co. 3-B..... 95
Kafer, Tarkington et al 1 ..... dry
Camp, Western Oil Corp. 1 15
Wilson, Bards et al 16 55
Wilson, L. T. Burns 1 ..... dry
Jackson, L. T. Burns 2 60
Hutchinson, B. F. Caldwell 1 115
McCrory, Magnolia Pet. Co. 1 ..... dry
Wilson, McCarty Oil Co. 17 65
Wilson, McCarty Oil Co. 22 20
Jackson, Muse & Robertson 3 ..... dry
Dale, Oakes et al 1 ..... dry
Ferguson, Shasta Oil Co. 1 ..... dry
Parrish, Texhoma O. & R. Co. 3 45
Griffin, Tidal Oil Co. 1 ..... dry
Tuberville, Wanderer Oil Co. 1 ..... dry
McCrory, D. M. Whittiken 1 ..... dry
Lowe, Barnsdall Oil Co. 2 12
Oldham, Cosden-Consolidated Co. 5 ... 750
Lauster, Golding & Cochran 1 ..... dry
Prideaux, Kell & Kruger 1 12
Pace, Murchison & Fain 1 ..... dry
Anderson, Perkins et al 13 300
Wolf, Primrose Refg. Co. 1 ..... dry
Jeske, The Texas Company 6 ..... dry
Jeske, The Texas Company 7 ..... dry
Prideaux, The Texas Company 3 30
Jeske, Texhoma O. & R. Co. 1-B ..... dry
Oldham, Texhoma O. & R. Co. 15 120
Oldham, Texhoma O. & R. Co. 16 30
Oldham, Texhoma et al 2 20

Wells completed 119
Production 6140
Dry 46

YOUNG COUNTY

McClatchey, Adams et al 1 ..... dry
Powell, Atlantic O. P. Co. 2 ..... dry
Boven, Bridwell et al 11 5
Benson, Carter et al 4 85
Vernon, Christie et al 1 ..... dry
Calvin, Log Cabin Oil Co. 1 ..... dry
Benson, Underwood Drilling Co. 2 25
Ford, Atkinson et al 1 40
Whittenburg, Mason et al 2-A 45
Fee, Stovall et al 4 ..... dry
Farmer, Bridwell et al 3 125
Farmer, Bridwell et al 4 ..... dry
Street, Bridwell et al 4 35
Benson, Carter et al 5 10
Watson, Harris et al 1 5
Benson, Carter R. I. 6 50
Leberman, Reed & Anderson 2 ..... dry
Marshall estate, Bashara et al 2 40
Scarborough, Coones & Hitchkiss 2 40
Burgess, Pritzer & West 1 ..... dry
Zimmerman, Applegate et al 1 ..... dry
Beardon, Bridwell & Hydrick 1 100
Mercer, Humble Oil & Ref. Co. 10 60
Bryan, Long et al 2 ..... dry
Boren, Prairie Oil & Gas Co. 5 30
Bearden, Lee Wilson 7 100

Wells completed 26
Production 795
Dry 10

HUTCHINSON COUNTY

Weatherley, Middleton et al 2 ..... gas
Weatherley, Phillips Pet. Co. 1 25
Whittenburg, Western Oil Corp. 1-JA.. 400
Whittenburg, Western Oil Corp. 2-JA.. 325
Cockrell, Newby Oil Co. 1 400
Whittenburg, Phillips Pet. Co. 1 100
Whittenburg, Phillips Pet. Co. 2 240
Whittenburg, Skelly Oil Co. 1 200
Whittenburg, Sunny Jim Oil Co. 1 500
Smith, Lennix & Stover 1 2400
Johnson Bros., Prairie Oil & Gas Co. et al 15

Wells completed 11
Production 4605
Dry 0
Gas 1
Gas production 8,000,000

STEPHENS COUNTY

Sikes, States Oil Corp. 3 ..... gas
Hodges, Livingston et al 1 ..... gas
Harmon, Quakins Pet. Co. 12 15
Gardenshire, Christie Bros. 2 5

Wells completed 4
Production 20
Gas 2
Gas production 12,000,000

EASTLAND COUNTY

McMinn, Magnolia Pet. Co. 1-B..... dry
Wood, Robert Oil Corp. 1 10
Wright, Knox-Lewis 1 ..... dry
Wright, Panhandle Refg. Co. 1 ..... dry
Liveridge, Reeves et al 1 ..... dry
McMinn, Magnolia Pet. Co. 8 30
Rice, Magnolia Pet. Co. 2 15
Connelle, Jim Amy et al ..... gas
Johnson, Hart Bros. 1 ..... gas
Luse, Root et al 1 20
Butler, Barker & Adams 1 10
Schmick, Lewis et al 1 ..... dry
Butler, Texas & Pacific Coal & Oil Co. 26 15

Wells completed 12
Production 100
Dry 5
Gas 2
Gas production 5,000,000

BROWN COUNTY

Prather, Barbour Oil Co. 3-A 140
Wooldridge, Conway Bros. 3 40
Hinson, Gillespie et al 1 100
Thompson, Gillman et al 3 25
Prather, Herring et al 1 100
Allen, Humble O. & R. Co. 1 ..... dry
Dunn, Humble O. & R. Co. 3 300
Prather, Shaffer et al 5 100
Newton, Rocky River Oil Co. 1 ..... dry
Dunn, E. L. Smith Oil Co. 1 1200
Newton, H. Y. Oil Co. 2 50
Prather, Barbour Oil Co. 7-B ..... dry
Prather, Barbour Oil Co. 8-B ..... dry
Dunn, Barkley et al 4 520
Chambers, Conway Bros. 5 150
Westerman, Cosden & Co. 6 250
Algood, Cox et al 1 ..... dry
Stone, Curry et al 1 ..... dry
Dunn, Humble O. & R. Co. 4 600
Wheeler, Keough Bros. 1 20
Allen, State Oil Corp. 1-C ..... dry
Dunn, The Texas Company 3 170
Ward, Moore et al 5 ..... dry
Dunn, Barkley & Conway 3 80
Dunn, Gray et al 5 500
Lewis, Gray et al 1 ..... dry
Arledge, J. K. Hughes Dev. Co. 3 200
Dunn, Humble O. & R. Co. 5 240
Prather, Landreth Oil Corp. 1 ..... dry
Wooldridge, McLester Oil Co. 3 75
Byrd, Moorman et al 1 200
Allen, States Oil Corp. 3-A 40
Dunn, The Texas Company 2 600
Dunn, The Texas Company 4 300
Means, Hynes & Deininger 1 ..... dry
Smith, Western Oil Sales Co. 1 ..... dry
Clark, Anderson & Shultz 1 ..... dry
Pickett, Conway Bros. 4 75
Pickett, Conway Bros. 5 125
Stone, Eastland Oil Co. 2 ..... dry
Newton, Gillespie et al 2 25
Chambers, Gillman & Murray 9 75
Byrd, Gross & Swinney 2 10
Stover, Humble O. & R. Co. 2 ..... gas
Allen, McCarter et al 3 ..... dry
Clark, McLester Oil Co. 6 40
Newton, Mook-Texas Oil Co. 4 10
Dunn, Smith Oil Co. 2 400
Dunn, Smith Oil Co. 12 250
Edgington, Smith Oil Co. 1 ..... dry
Gaines, Stout & Preston 1 15
Dunn, The Texas Company 5 400
Smith, Bays & Ramsier 1 14
Brooks, Hart et al 1 ..... dry
Sweat, Mae et al 1 ..... dry
Welch, Roth & Faurot 1 ..... dry

Wells completed 56
Production 7439
Dry 19
Gas 1
Gas production 2,000,000

REAGAN COUNTY

University, Big Lake Oil Co. 56 745
University, Big Lake Oil Co. 61 1225
University, Big Lake Oil Co. 62 520
University, Big Lake Oil Co. 51 2886

Wells completed 4
Production 5376

COLEMAN COUNTY

Watson, Bradshaw et al 1 5
Dibrell, Gwinnup et al 2 385
Morris, Marton et al 1 ..... dry
Brehn, Nolan et al 1 ..... dry
Watson, Gladys-Belle Oil Co. 3 ..... gas
Hutchings, Monroe Prod. Co. 1 ..... gas
Parsons, Canyon Oil & Gas Co. 1 ..... dry
Morris, Magnolia Pet. Co. 15-A ..... dry
Dibrell, Mid-West Exp. Co. 1-A 225
Dibrell, Burke-Greis Oil Co. 1 350
Morris, Canary et al 2 40
Morris, French et al 1 ..... dry

Wells completed 12
Production 1005
Dry 5
Gas 2
Gas production 4,000,000

MITCHELL COUNTY

Womack, Atlantic O. P. Co. 4 85
Adams, Eastland Oil Co. 1 125

Edler, California Co. 5 100
Miller, California Co. 5 50
Womack, California Co. 3 175

Wells completed 5
Production 535

MONTAGUE COUNTY

Hinds, Benton et al 3 110
Hinds, Benton et al 4 90
Hinds, Flemming et al 1 85
Maddox, Pure Oil Co. 5 60
McGaughey, Texhoma O. & R. Co. 1 ... dry
Rowland, Texhoma O. & R. Co. 2 70
Oldham, The Texas Company 4 120
Howard, Humphreys Oil Corp. 2 40
Maddox, E. L. Smith Oil Co. 2 95
Hinds, Benton Woods et al 5 108
Hinds, F. H. E. Oil Co. 2 60
Maddox, Pure Oil Co. 1 50
Cunningham, The Texas Company 1 .. gas
Oldham, The Texas Company 5 75

Wells completed 14
Production 963
Dry 1
Gas 1
Gas production 20,000,000

SHACKELFORD COUNTY

Hadley, Phillips Petroleum Co. 1 ..... dry
Gray, Van Dyne et al 1 ..... dry
Cook, Humble O. & R. Co. 1 600
Reynolds, Heck et al 1 ..... dry
Healey, Jackson et al 1 ..... dry
Spell, Milham Corp. 1 ..... dry
Snyder, Montray Oil Co. 2 30
Cook, Roesler & Pendleton 1 443
McKeever, Zeigler & Fentiss 1 ..... gas
Terry, Magnolia Pet. Co. 4 28
Simpson, Milham Corp. 1 ..... dry

Wells completed 11
Production 1101
Gas 1
Dry 6
Gas production 3,000,000

PALO PINTO COUNTY

Hinkinson, Ochiltree 2 ..... dry
McDonald, Hart et al 1 ..... dry
Slemmons, Moore & Suebold 2 200

Wells completed 3
Production 200
Dry 2

LOVING COUNTY

Johnson, Rio Grande Oil & Refg. Co. 1. dry

CLAY COUNTY

Waggoner, Lone Star Co. 27 45
Roper, Neff et al 1 ..... dry
Culbertson, Lowry Oil Corp. 1 ..... dry
Winfrey, Southern Core Drilling Co. 1.. dry

Wells completed 4
Production 45
Dry 3

BAYLOR COUNTY

Garner, Cosden & Co. 1 ..... dry
Portwood, Magnolia Pet. Co. 5 10

Wells completed 2
Production 10
Dry 1

GRAY COUNTY

Worley & Reynolds, H. F. Wilcox O. & G. Co. 2 380

CALLAHAN COUNTY

Leggett, The Texas Company 1 ..... dry
Seamens, Clark & Baldridge 1 ..... dry
Stock, Wheeler Bros. 1 15

Wells completed 3
Production 15
Dry 2

COOKE COUNTY

Pierce, Porter et al 1 ..... dry

JACK COUNTY

Preston, Buttram Petroleum Co. 2 50

SCURRY COUNTY

Newman, Carey et al 1 10

UPTON COUNTY

Sanger Bros. Marland Oil Co. 1 75
Taylor, Independent Oil & Gas Co. 1 ... 110
Burleson, Independent Oil & Gas Co. 1 . 10
Halff, J. M. Gerney 1 ..... dry
Union Land Co., Kirby Pet. Co. 1 ..... dry

Wells completed 5
Production 195
Dry 2

CROCKETT COUNTY

Todd, Republic Prod. Co. 1 ..... dry
Sarg, Humble O. & R. Co. 1 1

Wells completed 2
Production 1
Dry 1

FOARD COUNTY

McCoy, The Texas Company 1 ..... dry

THROCKMORTON COUNTY

Ledbetter, Humble O. & R. Co. 1 72
Parrott, Red Bank Oil Co. 1 360

Wells completed 2
Production 432

TOM GREENE COUNTY

Turner, Penn-Windsor 1 ..... dry

CRANE COUNTY

University, Magnolia Pet. Co. 1 90

POTTER COUNTY

Bivins, Amarillo Oil Co. 4 ..... gas

Gas 1
Gas production 3,500,000

CARSON COUNTY

Burnett estate, Culbertson Bros. 1 ..... gas
Nurbett estate, Marland Oil Co. 1000

Wells completed 2
Production 1000
Gas 1
Gas production 75,000,000

HOWARD COUNTY

Chalk, Owens & Sloan 1 325

STERLING COUNTY

Reynolds, Chas. L. Harty 1 ..... dry

WICHITA COUNTY

Rigs

Long et al, Perkins & Collum 2.
McCarty "A," Shappell Oil 3.

Wells Drilling

J. E. Roller, Ascot Oil Co. 1.
F. P. Warren, Cozy Oil Co. 10, 11, 12.
H. Willis, Jackdow et al 1.
Saunders, Humble O. & R. 1.
R. L. Miller, H. M. Long et al 1.
H. Reilly, Magnolia Pet. Co. 127, 128.
F. P. Warren, Magnolia Pet. Co. 10.
O. C. Beach, Magnolia Pet. Co. 14.
H. Beach, Texhoma O. & R. and Magnolia Pet. Co. 1-A.
Dutton, Consolidated Oil Co. et al 1.
Jennings, Apple & Brandeberry 18.
Etheridge, R. M. Armstrong 1.
A. Snow, F. Beaudoin 1.
Daume, Boller et al 3.
Jennings, Brader et al 3.
Waggoner Bros., Bridwell, Heydrick & Moore 3.
Jennings, Bullington, Lee and Pendleton 17.
Douglas, Camp Oil & Gas Co. 13.
Powell, Chenault & Burleson 1.
Waggoner Bros., Culberson Co. 38.
Waggoner, Eureka Prod. Co. 13.
Peeler, Fidelity Oil Corp. 16.
Allingham "A," Hereford Oil Co. 2.
Douglas, Howell et al 1.
Burnett, Joe Howell 3.
Waggoner "D," Humble Oil & Ref. 3, 4.
Mitchell-Waggoner, Humble Oil & Ref. 4.
Waggoner Bros., Jefferson Oil Co. 5.
Jennings, J. E. Jones 4.
Waggoner Bros., Larkin & Wilson 1.
Overby, Long Cline et al.
Honaker, Magnolia Pet. Co. 70.
Maer "A," Magnolia Pet. Co. 3.
Watkins, Magnolia Pet. Co. 11.
Chilson, W. B. Omohundro 4.
Mitchell, Pace et al 1.
Jennings, Panhandle McClure 4.
Powell, Panhandle Ref. Co. 1.
Payton, Parsons & Rankin 1.
Burnett, Perkins, Cullum & Howell 1.
Chilson, W. A. Plummer 8.
Bywaters, Red River Oil Co. 21.
Hensen, Ryan Pet. So. 8.
Sheldon et al, C. F. Sheldon 1.
Priddy et al, Staley & Wynne 1.
Burnett "E," Texhoma Oil & Ref. Co. 8.
Waggoner Bros., Tidal Oil Co. 1.
Mitchell "B," White Bros. 3.
Rigs, 2; wells drilling, 52; total, 54.

WILBARGER COUNTY

Rigs

Castlebury, Humble O. & R. Co. 24.
Fee, Magnolia Pet. Co. 72.
Waggoner "A," Phillips Pet. 8, 10.
Waggoner "F," Phillips Pet. 9.
Waggoner "G," Phillips Pet. 5.
Waggoner "JJ," Phillips Pet. 2.
Waggoner "WW," Phillips Pet. 1.
Waggoner, Roxana Pet. Corp. 2.
Guyer, Stewart et al 1.

Wells Drilling

Allison, J. B. Alford 1.
Sigler Waggoner, Atlantic O. P. 4.
Stephens, Bridwell & Heydrick 13.
Waggoner, Bridwell & Heydrick et al 1.
Castlebury, W. G. Burton 3.
Waggoner, W. G. Burton 1.
Castlebury, Castlebury Farm Oil Co. 8.
Stephens, Empire G. & F. 10, 31, 34.
Bond B, Humble O. & R. 5.
Chauncy & Gambill, Humble O. & R. 1.
Stephens, Humble O. & R. 44, 45, 46.
Waggoner "G," Humble O. & R. 6.
Waggoner "H," Humble O. & R. 8, 9, 10.
Waggoner "K," Humble O. & R. 3, 4.
Waggoner "M," Humble O. & R. 4, 6.
Waggoner "N," Humble O. & R. 2.
Waggoner "O," Humble O. & R. 5, 6.
Waggoner, Kelly et al 1.
Waggoner, E. B. Lawson 14, 15.
Piper, Magnolia Pet. Co. 49.
Summer, Magnolia Pet. Co. 53.
More Waggoner, Magnolia Pet. Co. 2.
Waggoner "A," Milham Corp. 3.
Waggoner "B," Milham Corp. 3.
Waggoner "D," Milham Corp. 1.
Waggoner "H," Milham Corp. 2, 5, 7, 10.
Waggoner "J," Milham Corp. 1.
Waggoner "L," Milham Corp. 6, 14.
Waggoner, Milner Oil Co. 1, 2.
Streit, Murchison & Fain 1.
Dill B, Petroleum Prod. Co. 3.
Waggoner "A," Phillips Pet. Co. 9, 11, 12.
Waggoner "D," Phillips Pet. 7.
Waggoner "G," Phillips Pet. Co. 4, 5, 7, 9.
Waggoner "H," Phillips Pet. Co. 5.
Waggoner "I," Phillips Pet. Co. 3.
Waggoner "Q," Phillips Pet. Co. 2.
Waggoner "T," Phillips Pet. Co. 1.
Waggoner "JJ," Phillips Pet. Co. 1.
Waggoner "N," Phillips Pet. Co. 4.
Waggoner "QQ," Phillips Pet. Co. 2, 3.
Waggoner "AAA," Phillips Pet. Co. 1.
Woodward, Plost et al 1.
Castlebury, Powers et al 1.
Waggoner, "A," Prairie Oil & Gas Co. 3.
Waggoner "B," Prairie Oil & Gas Co. 2.
Kemp et al, Quincy Oil Co. 2.
Section 19, Rio Bravo Oil Co. 1.
Waggoner "B," Rondeau 1.
Waggoner "C," Rondeau 1.
Waggoner "A," Roxana Pet. Corp. 7, 8.
Waggoner "D," Roxana Pet. Corp. 1.
Waggoner "B," Shamrock Oil Co. 1.
Castlebury, J. F. Shipley 1.
Waggoner, J. T. Shipley 1.
Waggoner, C. L. Sloan 2.
Guggisberg, The Texas Company 1.
Waggoner, Texhoma O. & R., Parnell & Cline 1.
Waggoner, Lee. 3, Tidal Oil 1.
Zipperle, H. W. Weir 1.
Milner, Whitehead et al 1.
Waggoner, Whitehead et al 1.
Winnipeg Oil Co. 1.
Haney, Wood 1.
Rigs, 10; wells drilling, 87; total, 97.

ARCHER COUNTY

Rigs

Mangold, Munsie & Consolidated Oil 1.
Kemp & Kempner, Panhandle Ref. and Rayzor 1.
A. P. Jackson, L. T. Burns 4.
Plowman et al, Empire G. & F. 1.
A. B. Edwards, Granberry et al 1.
L. F. Wilson, Griswold Oil Corp. 4-D.
L. F. Wilson, Humble O. & R. 2-D .
L. F. Wilson, T. G. Lomax, Jr., 2-H.
J. M. Miller, Magnolia Pet. Co. 1.
Perkins et al, Marland Oil & Trahan Pet. 1.
L. F. Wilson, McCarty Oil 19.
G. T. Netherton, Richardson Oil Corp. 1.
Plowman et al, Stewart Dev. Co. 8.
Parrish et al, Texhoma O. & R. 4-A.
Wolf, Barnadall Oil Corp. 1.
Rachuig, Camp Oil & Atlantic O. P. 5.
Jeske, Ray & Massie 1.
Abercrombie, Simms, Hammond & Hines 1.
Kunkel, Texhoma Oil & Ref. 1, 2.
Oldham, Texhoma O. & R. and Republic Prod. Co. 3.

Wells Drilling

Ferguson, Darr & Hill 1.
Murrah, Grace Oil 1.
Mangold, Shasta Oil 13.
Hamilton, Texhoma O. & R. 9.
Mangold, Tidal Oil 1.
Kemp & Kempner, Wilson Drlg. Co. 5.
B. G. Hasson, Allday et al 1.
Parkins et al, G. S. Anderson 5.
L. F. Wilson, Barkley & Meadows 24.
W. T. Hutcheson, Bridwell, Heydrick, Lincoln & Hutcheson 1.
A. P. Jackson, L. T. Burns 3.
W. M. Coleman, Cannon Rex et al 1.
W. H. Taylor, Consolidated Oil and W. C. Young 1.
A. J. Evans, Gray Oil 1.
G. Moss, Hart & Hopkins 1.
Hutcheson, W. D. Hill et al 6.
W. R. Brown, Howell & Barkley 1.
Parrish et al, Humble O. & R. 6-A.
J. H. White, A. W. Kollatt 5.
A. D. Thompson, M. L. Lewis et al 1-B.
May Rutty, Magnolia Pet. Co. 4-B.
L. F. Wilson, McCarty Oil 18, 24-B.
May Rutty, T. A. Norwood et al 2.
J. M. Hawley, Muse & Robertson et al 1.
Fee, Oil Investment Co. 1-B.
B. Z. Lyles, Fred Phillips et al 1.
L. F. Wilson, Lot 1, Ramming & Saunders 1.
Hutcheson, Rowe Drlg. Co. 1.
L. F. Wilson, Shappell Oil 3-A, 4-A.
Turbeville, Simms Oil 1-A.
S. M. Cowan Est., Simms Oil and Consolidated 1.
Dycus, The Texas Company 1-B.
L. L. Marcell, White Eagle O. & R. 2.
W. N. Miller, V. O. E. Wright et al 4, 5.
L. F. Wilson, Woodburn Oil Corp. 26-A, 27-A.
Oldham, Atlantic O. P. 3.
Wolf, C. U. Beasley 2.
Scruggs, Clark & McGee 7.
Cowan Est., R. I. Carter 5.
Rogers, Continental Oil 7.
Oldham, Cosden and Consolidated 6-A, 4-B, 5-B, 1-C.
Richardson, Cosden & Consolidated 1.
Andrews, Homer Donohue 1.
Rogers, Fisher & Gilliland, 10.
Echols, Gwynn et al 3.
Robinson, Hopper & Graves 1.
Wolf, Humble Oil & Ref. 3, 5, 6.
Wolf, Independent O. & G. 4.
McCarty, Maer & Staniforth 2.
Darilek, Magnolia Pet. Co. 2.
Lauster, Magnolia Pet. Co. 2.
Little, Magnolia Pet. Co. 1.
Rogers, Magnolia Pet. Co. 8.
Anderson, J. J. Perkins et al 14.
Prideaux, Pitts et al 1.
Kovar, Prairie O. & G. and Sun Oil Co. 3.
Wilhelm, E. A. Reilly 1.
Meade Est., Shasta Oil et al 1.
Jeske, The Texas Company 8.
Key, The Texas Company 1.
Wolf, Texas Consolidated Oil 3.
Abercrombie, Texhoma Oil & Ref. 3-A.
Fee, Trinity Townsite Co. 1.
Prideaux, United Producers 1.
Young, Verschoyle et al 3.
Richardson, Wichita Prod. Co. 4.
Rigs, 21; wells drilling, 75; total, 96.

YOUNG COUNTY

Rigs

Cheeves, Eagle Creek Oil 2.
Prideaux Bros., Foster et al 1.
Gragg, Reed & Anderson 2.

Wells Drilling

Stewart, Appleby et al 1.
Rachuig, Atlantic O. P. 1-B.
Graham, Booth Oil 2.
Steen, Casey et al 1.
Keen, Cook & Reeder 1.
Mercer, Humble O. & R. 11.
Cox, McElreath & Suggett 1.
Snyder, McElreath, Suggett and Phillips Pet. 1.
Speer, Newburg & Foster 1.
Boren, Prairie O. & G. 6.
Bearden, The Texas Company 9.
Belnap Coal B, Whitehead et al 2.
Donnell, Atkinson & Sandeford 1.
Costello Bros., Dyer et al 1.
Harrison, Hubbard Drilling Co. 1.
Hunt, Hubbard Drlg. Co. 1.
Griffin, Humphreys Corp. 1.
Donnell, Liner Drlg. Co. 1.
Donnell, McQuain et al 1.
Wergens, Nash & Windfohr Oil 1.
Corbett, Phillips Pet. 2.
Goldston Burkett, Simms Oil 1.
Rigs, 3; wells drilling, 22; total, 25.

STEPHENS COUNTY

Rigs

S. H. Hill, Mid-Kansas O. & G. 10.
Morrison, Mid-Tex O. Co. 2.
Knox, Republic Prod. Co. 7.
Norvell, Brown & Co. 1.
Parks, Hickok Prod. Co. 2.
Brown, Humble O. & R. 1.
Christenson, Livingston et al 1.
Hart, Pender Prod. Co. 2.
Elder, Pender Prod. Co. 2.
Veals, Texas & Pacific C. & O. Co. 11.
Curry, The Texas Company 2.

Wells Drilling

Bell, Beson Drlg. Co. 3.
Lee, Interstate Cons. O. Co. 3.
Cody, Kendridge Oil Co. 1.
G. W. Hill (Acct. 1), Mid-Kansas O. & G. Co. 14.
G. W. Hill (Acct. 2), Mid-Kansas O. & G. Co. 4.
Cunningham, Mid-Tex O. Co. 5.
Morrison, Mid-Tex O. Co. 3.
Vick, Mid-Tex O. Co. 1.
Martin, Pennok O. Co. 8.
Crowley, Rhodes & Higher 4.
Cobb, Swensondale 8.
Echols, Swensondale 1-B.
Martin, Texas Cons. O. Co. 7.
Bradford, Adamson & Fouts 1, 2.
Keathley, Atkinson & Sandefer 1.
Bradford, Barnhart et al 1.
Compton, Bateman & Campbell 1.
Akin, Brown & Co. 4.
Hodges, Chestnut & Smith Corp. 1.
Goforth, Corzelius Bros. et al 1.
Post, Edison et al 2.
Gratz, Federal Oil 1.
Curry, Hanlon Gasoline Co. 1, 2.
McCauley, Herbert Oil Co. 1.
Gandy, Hughes et al 5.
Long, Hughes et al 1.
Yoes, Humble O. & R. 1.
Grimes, Kleinfelder 4.
Sikes, Lauderdale & Enes 1.
Chesley, Meredith & Thomas 1.
Akin, Phillips Pet. Co. 2.
Bruce, Price & Russell 2.
Moon, Producers Union Oil 1.
Nolan, Provident Oil 1.
Tolle et al, Reeves & Meredith 1.
Thorp, Robert Oil Corp. 1.
Ming, Scanlon & Lightfoot 1.
Swenson, Swensondale Oil Co. 32.
Taylor, Swensondale Oil Co. 1.
Binney, Texas Pacific C. & O. 63, 64.
Hancock, Texas Pacific C. & O. 1.
Winston, Texas Pacific C. & O. 3-B.
Rigs, 11; wells drilling, 45; total, 56.

EASTLAND COUNTY

Rigs

Fox, Evans et al 1.
Wood, Kokomo Pet. Co. 1.
Ford, Magnolia Pet. Co. B-1.
Harris, Magnolia Pet. Co. 10.
Durocher, Texas Pacific C. & O. 1.
Hodges, Texas Pacific C. & O. 6.
Terry, Delaney 1.
Proctot, Eastland Oil 1.
Owen et al, Hickok Prod. & Dev. Co. 1.
Butler, Mook et al 1.
Dill, Parnell 1.

Wells Drilling

Cooper, Corzelius Bros. 1.
Garrett, Corzelius Bros. 1.
Armstrong heirs, Eastland Oil 1.
Blackwell, Kirk & Brewer 1.
Allen Est., Lightfoot et al 3.
Casey, Lobaugh et al 1.
Ross, Moorman et al 1.
Scott, Teatsworth et al 9.
Grove, Adams et al 1, 2.
Mulloy, Bateman & Campbell 1.
Poe, Corzelius Bros. et al 1.
Hitson, Hoffer Oil Corp. 1.
Bell, Inglewright et al 1.
Johnson, McBride 1.
Strickland, Root et al 1.
White, Rumbaugh & Thompson 1.
Morgan, Simon et al 1.
Noble et al, The Texas Company 1.
Rigs, 11; wells drilling, 19; total, 30.

BROWN COUNTY

Rigs

Allen, Barkley & Conway 1.
Baxter, J. S. Cosden 9.
Edington, Danciger et al 3.
Gaines, Hamon, Jr., 1.
Armstrong, Harris, Hayes Co. 1.
Hensley, Louisiana O. & R. 1.
A. J. Wooldridge, McLester Oil Co. 1-A, 4.
Keeler, Mitcham 1.
Byrd, Moorman et al 3, 4.
Hill, Nelson & Crabtree 1.
Newton, T. B. Slick 2.
Eubanks, States Oil Corp.
Newton, West & H. Y. Oil Co. 3, 4.
J. Wooldridge, Wilson 1.

Wells Drilling

Allgood, Anderson & Shults 1.
Dunn, Anderson & Shults 1.
Suttles, Barbour Oil 1.
Dunn, Barkley & Conway 6, 7.
Dunn, Bedichek 1.
Boysen, Boysen & Remsier 1.
Windham, Brit 1.
Stapp, Carter et al 1.
Wheeler, Carter et al 1.
Pickett, Conway Bros. 6, 7.
Woolridge, Conway Bros. 4.
Westerman, Cosden 9.
Williams, Cosden 1-A.
Kilgore, Curry et al 1.
Church Lot, Curry et al 1.
Pickett, Curry & Moore 1.
Prather, Curry & Moore 1.
Cason, Denny 1.
Graham Est., Douglas et al 1.
Eubanks, Evans et al 1.
Butler, Fagg et al 1.
Carmichael, Gibson Oil 1.
Newton, Gillespie 3.
Thompson, Gilman & McMurray 4.
Harrell, Goldrick & Baker 1.
McDonough, Haggard 2.
Prather, Herring 2.
Keller, Holdeman 1.
Arledge, Hughes Dev. Co. 4, 5, 7.
Dunn, Humble O. & R. 7, 8, 9, 10, 11.
Hodnet, Humble O. & R. 2.
Stover, Humble O. & R. 3.
Mauldin, Hulton et al 1.
Graham Est., Jarvis et al 1.
Allen, McCarter et al 2, 4.
Clark, McLester Oil 4.
Suttles, Midwest Exp. Co. 1.
Edington, Milham Corp. 1.
Nations, Mims et al 1.
Cason & Grantham, Mitcham & Taylor 1.
Lehman, J. W. Moore 1.
Byrd, Moorman et al 2.
Newton, Mulloy & Chandler 1.
Westerman, Pandem Oil Corp. 1.
Dunn, Phillips Pet. 1.
Turner, Prairie O. & G. 1.
Jones, Rathblott 1.
Newton, Rocky River Oil Corp. 2.
Suttles, Root 1.
Buzbee, Root 1.
Prather, Schaffner & Wilson 9.
Lewis, Shadbolt & Creighton 1.
Gaines, Simms Oil Co. 7.
Starr, T. B. Slick 2.
Dunn, E. L. Smith Oil 3, 4, 11, 13.
Graham Est., E. L. Smith Oil 1.
C. Allen, States Oil Corp. 4, 5.
Giddings, Superior Oil 1.
Dunn, The Texas Company 6, 7, 8.
Paterson, Thomas & Reynolds 1.
Roe, Troutt et al 1.
Keller, Williamson et al 1.
Roirdan, Cox & Spratt 1.
Reed, Hayes 1.
Clark, C. O. Moore 2.
McIntosh, Moore et al 1.
Parks, Richardson et al 2.
Mattock, Savings & Scoggins 1.
Cleveland, Schoonmacher 1.
Hall, Shadbolt & Creighton 1.
Anderson, Trout & Co. 1.
Rigs, 17; wells drilling, 86; total, 103.

COLEMAN COUNTY

Rigs

Davenport, Canyon O. & G. 1.
Dibrell, Mid-Kansas O. & G. 2.
Dibrell, Midwest Exp. Co. 2-A, 1-B.
Edmondson, Miller & Stovall 1.
Bullard, Root 1.
Hutchings, Wright & McNallen 1.

Wells Drilling

Morris, Bateman & Campbell 1.
Dibrell, Burke, Greis & Cummings 3, 4.
Dibrell, Burke-Greis Oil 2.
Sealy & Smith, Curtis et al 1.
Crawford, English et al 1.
Harris, English et al 1.
Wilker, Evans & Wakefield 1.
Morris, French & Lewis 1.
Dibrell, Independent O. & G. 1, 2.
Morris, Hughes Dev. Co. 1.
West, Jones et al 1.
Dibrell, Kirby Pet. 1.
Overall, Mahlstedt Oil Co. 1.
Lowe, McChesney 1.
Kinney, Merry Bros. and Parini 1.

Dibrell, Mid-Kansas O. & G. 1.
Young Bros., Morrison & St. John 2.
Dibrell, C. O. Moore 1.
Morris, Moore et al 1.
Baker, Owen & Sloan 1.
Neeb, Pennant O. & G. 1.
Hilton, Superior Oil 1.
Dibrell, Western Oil Sales Co. 1.
Casey, White Eagle O. & R. 1.
Dibrell, White Eagle O. & R. 1.
Campbell, Bartlett 1.
Whitfield, Gillespie et al 1.
Stearns, Howard Pet. Corp. 1.
Harris, Monroe Prod. Co. 1.
Overall, Monroe Prod. Co. 2.
Pitty, McKenzie et al 1.
Burk, Morrison & St. John 1.
Haygood, Ross & O'Connor 1.
Stewardson, Ross & O'Connor 1.
Deavers, Van Eman et al 1.
Star, Wright 1.
Rigs, 7; wells drilling, 38; total, 45.

CALLAHAN COUNTY

Rigs

Cutbirth, Canary et al 1.
Boydston, Gibson & Johnson 1.
Smith, Gibson & Johnson 1.
Robbins, Pennant O. & G. 1.

Wells Drilling

Windham, Adams et al 1.
Pippin, Andrews Pet. Corp. 1.
Jackson, Denny & Andrews 1.
Terry, Diamond 1.
Ellis, French & Lewis 1.
Maddux, French & Lewis 1.
Yost, French & Lewis 1.
Conlee, Halmack Oil Co. and Pennant O. & G. 1.
Cutbirth, Hughes Dev. Co. 1.
Strahan, McCamey et al 1.
Brasher, C. O. Moore 1.
Huling, C. O. Moore 1.
Finley, Moutray Oil Co. and Reiter-Foster 2.
Atchley & Crane, Redmond 1.
Long, Roesser & Pendleton 1.
Young, Roesser & Pendleton 1.
Gorsuch, Transcontinental Oil Co. 1.
Barr, Wilkerson & Lightfoot 1.
Rigs, 4; wells drilling, 18; total, 22.

MITCHELL COUNTY

Rigs

C. P. Conoway, Owens & Sloan 1.
Mary Foster, Magnolia Pet. Co. 2.
W. L. Foster, the California Co. 1.
C. M. Adams, Lse. 2, the California Co. 3.

Wells Drilling

Handley, Eastland Oil Co. (Gulf) 1.
P. E. McKenzie, B. H. Cogdell 1.
Womack, Atlantic O. P. 5.
Ellwood, Mid-Kansas Oil & Gas Co. 1.
P. C. Coleman, Magnolia Pet. Co. 1.
C. M. Adams, Magnolia Pet. Co. 4.
Kloh & Rumsey, Magnolia Pet. Co. 1.
A. P. Watson, Magnolia Pet. Co. 1.
Hyman, Morrison & Thompson 1.
C. M. Adams, Lse. 2, the California Co. 2.
Womack, the California Co. 4, 5.
C. M. Adams, Lse. 3, the California Co. 1.
J. D. Pettifils, the California Co. 1.
Rigs, 4; wells drilling, 14; total, 18.

HUTCHINSON COUNTY

Rigs

Watkins, Bear Creek Oil Co. 1.
Smith, Dixon Creek Oil Co. 11, 12, 13, 14, 15.
Merchant, Big Creek Oil Co. 1.
Whittenburg, Coble-Whittenburg 4.
Johnson Bros., Derby Oil Co. et al 1.
Smith, Lenix & Patterson 2.
Johnson Bros., Marland Oil Co. 1.
River Bed, Marland Oil Co. 1.
Smith, S. D. & W. W. McIlroy, 1, 2, 3.
H. E. Smith et al Midwest Exp. Co. 3, 4, 5.
Kingsland, New Domain Oil Co. 2.
J. A. Whittenburg, Phillips Pet. Co. 1, 2, 3.
J. A. Whittenburg, Phillips Pet. Co. and Parks Oil Co. 1.
J. A. Whittenburg, Phillips Pet. Co. and Gibson Oil Co. 2.
J. A. Whittenburg, Phillips Pet. Co. 3.
Johnson Bros., Prairie Oil & Gas Co. 1.
H. E. Smith et al, Relief Oil Co. 2.
Johnson Bros., Skelly Oil Co. 4.
J. A. Whittenburg, Skelly Oil Co. 5.
W. L. Kingsland, Skiatex Oil Co. 3.
E. Cockrell, J. A. Swindler & Son 1.
W. L. Kingsland, Twin Six Oil Co. 6.
E. Cockrell, J. D. Ward 2.
O. W. Jarvis, Western O. & D. Co. 1.
J. A. Whittenburg, Westex Oil Co. 3.
J. A. Whittenburg, White Eagle Oil & Ref. Co. 2.

Wells Drilling

Lewis, Badger Oil Co. 1.
J. A. Whittenburg, Canyon Oil Co. 1, 2.
Smith, Cockrell-McIlroy 1, 2.
Smith, Currie Bros. & Phillips 1.
Smith, Dixon Creek Oil Co., 3, 4, 5, 6, 7, 8, 18, 21, 29.
Weatherly, Fly-Blackburn Oil Co. 1.
Kingsland, Gates Oil Corp. 1, 2, 3, 4.
Johnson, Gibson Oil Co. 1.
Hodges, Golding & Phillips Pet. Co. 1.
Cockrell, Heywood et al 1.
Smith, Holmes et al 1.
Smith, Lucky Ten Oil Co. 1.
Smith, McIlroy Bros. et al 3.
Smith, McIlroy & Herring 2.
Johnson, McMan Oil Co. 1.
Smith et al, Apex Oil Co. 1.
Kingsland, Canadian River Oil Co. 2, 3, 4.
Pritchard, Center Dome Oil Co. 1.
Whittenburg, Coble-Whittenburg 1, 2, 3.
Johnson Bros., Derby Oil Co. 1.
Cockrell, Double Five Oil Co. 1.
Whittenburg, Douglas Oil Co. and Cline 1.
Weatherly, Drysdale Oil Co. 1.
Kingsland, Gibson Oil Co. 1, 5.
Kingsland, Gibson Oil Co. et al 1.
Smith et al, Dan A. Japhet 1.
Thompson, Inspiration Oil Co. 1.
Johnson Bros., J. H. Lenix 1.
Smith et al, McMan Oil Co., 1, 2, 3, 4.
H. E. Smith et al, J. H. Middleton 1, 2.
H. E. Smith et al, Midwest Exploration Co. 1, 2.
Johnson Bros., A. D. Morton 1.
Kingsland, New Domain Oil Co. 1.
H. E. Smith et al, Phillips & Heywood 1.
J. F. Weatherly, J. R. Phillips 1.
Johnson, Bros., Phillips Pet. Co. 1.
J. A. Whittenburg, Phillips Pet. Co., and Coble, 2, 3, 4, 5, 6, 7, 8.
Johnson Bros., Phillips Pet. Co. and Gibson Oil Co. 1.
J. A. Whittenburg, Phillips Pet. Co. and Parks Oil Co. 2.
J. A. Whittenburg, Phillips Pet. Co., Gibson Oil Co., McMillan et al 1.
Cockrell, Phillips Pet. Co. and Pulaski Oil Co. 1.
J. A. Whittenburg, Phillips Pet. Co. and Pulaski Oil Co. 1.
Johnson Bros., Phillips Pet. Co. et al 1.
H. E. Smith, Phillips Pet. Co. 1, 4.
J. A. Whittenburg, Phillips Pet. Co. 1, 2.
Johnson Bros., Phillips Pet. Co. and Pulaski Oil Co. 1.
M. Weatherly, Prairie Oil & Gas Co. 2.
Johnson Bros., W. R. Ramsey 1.
H. E. Smith, Relief Oil Co. 1.
H. E. Smith, Riley & Holmes 1.
Lee Bivins, Roxana Pet. Corp. 1.
H. E. Smith, Roxana Pet. Corp. 1-B, 2-B, 2, 3.
Johnson Bros., Skelly Oil Co. 1, 2, 3.
Johnson Bros., Skelly Oil Co. 1.
J. A. Whittenburg, Skelly Oil Co. 2, 3, 4.
W. L. Kingsland, Skiatex Oil Co. 4.
Lyal, Smith & Wilbank 1.
J. A. Whittenburg, Smith & Bynum 1.
H. E. Smith et al, J. L. Smith 1.
H. E. Smith et al, Spring Creek Oil Co. 1.
J. A. Whittenburg, Sunny Jim Oil Co. 2.
J. A. Whittenburg, Summit Oil Co. 1, 2.
E. Cooper, The Texas Company 1.
Burnett Estate, The Texas Company 7.
Johnson Bros., Tex-O Oil Co. 1.
W. L. Kingsland, Travelers Oil Co. 2.
H. E. Smith et al, Triangle Oil Co. 1.
W. L. Kingsland, Twin-Six Oil Co. 2-A, 3, 4, 5.
E. Cockrell, J. D. Ward 1.
Johnson Bros., White Eagle Oil & Ref. Co. 1.
H. E. Smith et al, White Eagle Oil & Ref. Co. 1, 2, 3, 4.
J. A. Whittenburg, White Eagle Oil & Ref. Co. 1.
Rigs, 36; wells drilling, 118; total, 154.

SHACKELFORD COUNTY

Rigs

Cook, Humble O. & R. 3.
Moberly, Magnolia Pet. Co. 1.
Cannon, Melton Oil 1.
Cook, Roeser & Pendleton 9-A, 84.
Poindexter, Spoonts et al 1.
Hamil, Humble O. & R. 1.

Wells Drilling

Cook, Amerada Pet. 1.
Black Bros., Buckeye Pipe & Supply Co. 1.
Proctor, Carter et al 2.
Parrish, Conley et al 1.
Colbert, Domestic Oil Co. 1.
Elliott, Dunaway et al 2.
Mathews, Engle Bros. 2.
Owens, Gilliam & Logan 1.
Reynolds, Heck et al 2.
Davis, Hope Pet. Co. 1.
Poindexter, Hope Pet. Co. 1.
Moberly, Hughes Dev. Co. 1.
Elliott, Kimmell & Dillard 1.
Davis, Lake et al 1.
Davis, McCrea 1.
Walker, McCurdy et al 1.
Midkiff, Magnolia Pet. Co. 1.
Edwards, Melton Oil 1.
Clark, Milham Corp. 1.
Sedwick, Milham Corp. 1.
Wille Est., Milham Corp. 1.
Stevens, Overlees 1.
Lynch, Phillips Pet. 9.
Colbert, Richardson Bros. 1.
King, Richardson Bros. 1.
Cook, Roeser & Pendleton 1-A-81, 4-A-85, 2-A-85, 3-A-85, 4-A-85.
Myrick, Simms Oil Co. 1.
Simpson, Texas Unity Oil 1.
Mathews, Wells et al 1.
Rigs, 6; wells drilling, 33; total, 39.

REAGAN COUNTY

Rigs

University, Big Lake Oil Co. 72.
University, Group 1, Texon Oil & Land Co. 46, 4-A, 5A.

Wells Drilling

University, Big Lake Oil Co. 57, 63, 64, 65, 66, 67, 68, 69, 70, 71, 17-A, 20-A, 25-A, 1-B, 2-B, 4-B, 7-B.
University, Camp et al 1.
Sawyer Cattle Co., Marland Oil Co. 1.
Walters, Simon et al 1.
University, Tannehill et al 1.
J. D. Sugg, The Texas Company 1.
University, Group 1, Texon Oil & Land Co. 38, 39, 40, 41, 42, 43, 44, 45, 2-A, 3-A.
J. A. Talley, Zoch et al 1.
Rigs, 4; wells drilling, 33; total, 37.

CROCKETT COUNTY

Rigs

Powell, Cromwell et al 4.
Powell, Humble O. & R. 5, 8.
J. M. Shannon, Ben Simon et al 1.
University, H. F. Wilcox 1.
University, F. P. Zoch 1.

Wells Drilling

Powell, Cromwell et al 2, 3.
J. M. Shannon, Crockett Drlg. Synd. 2.
Couch, Cumberland O. & G. 1.
Noelke, J. S. Cosden 1.
P. J. Sorg, Humble Oil & Ref. 1.
Powell, Humble Oil & Ref. 4, 6, 7.
Powell (32.5 ac.), J. K. Hughes 1.
Powell (80 ac.), J. K. Hughes 1.
J. M. Shannon, Magnolia Pet. 1.
J. S. Todd, Marland Oil Co. 1.
Powell, Roxana Pet. Corp. 1.
University, Wm. Schaffer et al 1.
J. S. Todd, The Texas Company 1.

SCHLEICHER COUNTY

Rig

J. A. and W. T. Whitten, Beavers & Leath 1.

SUTTON COUNTY

Well Drilling

Allison, Chesapeak Oil 1.

VAL VERDE COUNTY

Rig

B. S. Harrison, Plateau Oil 1.

Wells Drilling

Moore Est., A. Blume 1.
Russell & Weathersbee, East Del Rio Oil 1.
W. J. & W. E. Whitehead, Independent operators 1.
Moore Est., Joe W. Morris 1.
Moore, E. T. Williams 1.

TERRELL COUNTY

Well Drilling

Sowden, E. T. Williams et al 1.

BREWSTER COUNTY

Well Drilling

J. P. Wilson, Green Valley Oil 2.

PRESIDIO COUNTY

Well Drilling

Tootle Est., Headlock & Miller 1.

HUDSPETH COUNTY

Well Drilling

Minnie Veal, Wm. Loftus et al 1.

PECOS COUNTY

Rig

Scharff & Blackman, Cromwell & Kimberlin 1.

Wells Drilling

Devlin, Tom Adams Oil Co. 1, 2.
A. A. Gray, Tom Adams Oil Co. 1.
Hershenson, Dixie Oil Co. 1.
Townsite, Quinby et al 1.
Perry, Transcontinental Oil Co. 1.
Macy, West Texas Exp. 1.
Devlin, Levi Smith et al 1.
Bennett et al, Trans-Pecos Oil Co. 2.

JEFF DAVIS COUNTY

Wells Drilling

Wingo, Herbert Oil Co. 1.
W. W. McCutcheon, Herbert Oil Co. 1.

REEVES COUNTY

Wells Drilling

Kloh & Rumsey, Humble O. & R. 1.
Abrams, Schooler-Slack et al 1.
Kloh & Rumsey, World Oil Co. 1.

CRANE COUNTY

Rig

Sanger Bros., The Texas Company 1.

Wells Drilling

University, Magnolia Pet. Co. 1.
Jax Cowden, Cordona Oil & Potash Co. 1.
Connel, J. S. Cosden 1.
W. H. Penix, Gilliam & Logan 1.
E. S. Hughes, Marland Oil Co. 1.
Jax Cowden, Pen Texas Dev. Co. 1.
Jax Cowden, Texas Dev. Co. 1.

UPTON COUNTY

Rig

Burleson, Dixie Oil Co. 3.

Wells Drilling

A. S. Burleson, Dixie Oil Co. 2.
E. S. Hughes, Dixie Oil Co. 1.
Halff, Hults et al 1.
Union Land Co., Plateau Oil et al 1.
Benton Land Co., Marland Oil Co. 1.
Burleson, Marland Oil Co. 2, 3.
Sanger Bros., Marland Oil Co. 2.
Noelke & Murphy, Marland Oil and Choate & Henshaw 1.
Mrs. M. L. Baker, Republic Prod. Co. 2.
Union Land Co., The Texas Company 1.
Union Land Co., Tidal Oil Co. 1.
University, Willis Campbell et al 1.
Union Land Co., F. P. Zoch et al 1.
Keith, F. P. Zoch et al 1.

WARD COUNTY

Well Drilling

E. J. Marston, Chesapeak Oil Co. 1.

IRION COUNTY

Wells Drilling

Sawyer Cattle Co., Oklavania Oil Co. 1.
Ash Bros., P. H. Williams 1.

TOM GREEN COUNTY

Rig

Pulliam, World Oil Co. 1.

Wells Drilling

Llano Co. School Land, M. D. Bryant et al 1.
L. T. Clark, Roxana Pet. Corp. 1.

CONCHO COUNTY

Wells Drilling

Schultz, Dutton et al 1.
Schultz, Kemper Kimberlin 1.

HASKELL COUNTY

Ballard, Kouri et al 2.
Colbert, Weirt & York 1.

STONEWALL COUNTY

Craft, Arkansas Fuel Co. 1.
Ward et al, Elder Nance 1.
J. M. Thomas, Elder Nance 1.
J. Q. Ward, Ward Syndicate 1.

KENT COUNTY

Barron, The Texas Company 1.

GARZA COUNTY

Swenson, Deep Rock Oil Co. 1.
Connell "A," Emerald Oil 1.
J. M. Boren, Emerald Oil 1.
N. N. Rogers, Midwest Exploration Co. 1.

LYNN COUNTY

Edward, Hart Oil Corp. 1.

GAINES COUNTY

Lindsey, Phelps & Mundy 1.

SCURRY COUNTY

J. O. Guinn, Camp Springs O. & R. 1.
Boyce, Fogelson et al 1.
A. Welborn, Northwest Oil Co. 1.

FISCHER COUNTY

Harris, McCool et al 1.

JONES COUNTY

Wm. Bristow, Shaw & Rathke et al 1.
Rowell, J. C. Yancey et al 1.
Herndon, J. C. Yancey et al 1.

THROCKMORTON COUNTY

Ledbetter, Humble Oil & Ref. Co. 1.
Stubblefield, Humble Oil & Ref. Co. 1.
A. J. Lie, Reiter-Foster Oil Corp., 1, 2.
Reynolds Cattle Co., Associated Pet. 3.
Upshur Co. School, Humble Oil & Ref. 1.

COMANCHE COUNTY

Evans, Brown Drlg. Co. 1.
Campbell, Dublin Dev. Co. 1.
Utterback, Trojan Oil Co. 1.

GLASSCOCK COUNTY

Sparkman, Case & Hoover 1.
Nellie Calder, Marland Oil Co. 1.

STERLING COUNTY

Rig

J. T. Davis, the California Co. 1.

Wells Drilling

A. Douthit, Co-Operative Lse. & Dev. Co. 1.
Durham, Chicago Texas O. & G. Co. 1.
L. T. Clark, Deep Rock Oil Co. 1.
L. T. Clark, H. D. Rummel 2.
C. Collins, Wrightsman Pet. Co. 1.

CORE COUNTY

E. C. Rawlings, Lipan Oil Co. 1.

TAYLOR COUNTY

Anderson, Sanger Oil & Ref. 1.
Norwood, Sanger Oil & Ref. 1.

HOWARD COUNTY

Rig

H. R. Clay, Reeves & Apperman 1.

Wells Drilling

W. T. Scott, Deep Rock Oil 1.
H. R. Clay, Fred Hyer 1.
O'Daniel, Marland Oil 1.
Chalk, Owens & Sloan 1.
Roberts, Transcontinental Oil Co. 1.

CULBERSON COUNTY

Rig

Kloh & Rumsey, Deep Rock Oil Co. 1.

Well Drilling

Mrs. G. H. Quaid, Pure Oil Co. 1.

WINKLER COUNTY

T. G. Hendrick, P. A. Westbrook et al 1.

ECTOR COUNTY

Rig

J. L. Johnson, Henry Zweifel et al 1.

MIDLAND COUNTY

Wells Drilling

Jones, M. Agress et al 1.
Hill, Rook & Zimmerman 1.

PALO PINTO COUNTY

Dalton, Dalton 6.
Dalton, M. Dalton 1.
Smith, Singleton et al 1.
McClure, Wheatley et al 1.
Edgin, Dalton 1.
Cardwell, Hart 1, 2.
Ormen, Hart 1.
Rasmussen, Pender Prod. Co. 2.
Costello Bros., Wheatley et al 1.

PARKER COUNTY

Stickford, Coffin et al 1.
Davis, Monroe 1.

ERATH COUNTY

Rig

Barton, Gillett 1.

Wells Drilling

Laney, Goodwin 4.
Finch, Nelson Oil Synd. 3.

HARDEMAN COUNTY

Wheat, Benedum & Trees 1.
Evans, Staley & Wynne et al 1.

FOARD COUNTY

Burress, Central Oil Ints. 1.
Easley, Humble Navarro Oil Co. 1.

COTTLE COUNTY

Dulaney, T. J. Woodley et al 2.

KING COUNTY

Frank Patton, Hoffer Oil Corp. 1.

KNOX COUNTY

Clark, Brazos Bend Oil 1.
Lawson, Robert Sanders 1.

BAYLOR COUNTY

Cockrell, W. J. Green 1.
Stevens, T. L. Head et al 1.
Portwood, Magnolia Pet. Co. 6.
Sykora, Pandem Oil Corp. 1.
Young C, Pandem Oil Corp. 1.

CLAY COUNTY

Rigs

M. K. Inman, Howard Pet. Co. et al 1.
Kaufman & Jones, Western Oil Corp. 2.

Wells Drilling

H. H. Johnson, Findley Knox 1.
Holloway, Lone Star Gas 19, 20.
J. D. Stine, Western Oil Corp. 1.
Scaling, Atlantic City Pet. Co. 1.
Stine Est., Cumley & Stine 2.
W. H. Dowlen & Son, W. P. Ferguson et al 1.
R. M. Waggoner, Lone Star Gas Co. 28.
Withers Subd., Lone Star Gas Co. 5.
Culbertson, Lowry Oil Corp. 2.
R. M. Waggoner, Winnipeg Oil 1.

MONTAGUE COUNTY

Rig

Steadman, Universal Oil Co. 1.

Wells Drilling

R. Hinds, Benton Woods et al 6.
Converns, Commercial Pet. 1.
R. Hinds, F. H. E. Oil Co. 3.
M. H. Solomon et al 2.
R. Hinds, Humble Oil & Ref. 1.
J. W. Maddox, Humble Oil & Ref. 1.
Howard et al, Humphreys Oil Corp. 3.
R. Hinds, Lesh-McCall & Kilcrease 3.
N. J. Howard, The Texas Company 1.
Cunningham, The Texas Company 2.
J. B. Oldham et al, The Texas Company 6.
J. W. Maddox, The Texas Company 1-B.
Rowland et al, Texhoma Oil & Ref. 7-A, 8-A.
Boedecker, Grigsby Oil Corp. 1.

COOKE COUNTY

Wells Drilling

Lester, Big Indian O. & R. 1.
Osborne, Elliott & Wallace 1.
A. Hyman, C. C. Lanier et al 1.
Hamilton, Leonard & James 1.
Houston, H. H. Simpson et al 1.

FANNIN COUNTY

Whitting, J. W. Atkins 1.
Moore, Errin Oil Co. 1.
Owens, Payne-Bond et al 1.

DENTON COUNTY

Fortenberry, Gainesville Synd. 1.

WISE COUNTY

Wells Drilling

Cassidy, SW. Com. Co., Magnolia Pet. Co. 2.
Castleberry, Transcontinental Oil Co. 1.

JACK COUNTY

Rigs

Pickrell, Kerbow et al 1.
Carpenter Est., Watchorn O. & G. 1.

Wells Drilling

Snedeker, Baytex Oil 1.
St. Nat. Bank, Bond & Heydrick 1.
Oliver, Buttram Pet. Co. 1.
Preston, Buttram Pet. Co. 3, 4.
Thomason, Dingee et al 1.
Bloodworth, Jordan et al 1.
Rankin, Murchison & Fain 1.
Wilson, Phillips et al 1.
Gray, Rochelle et al 1.
Gay, Washington Oil Co. 1.

MOORE COUNTY

Wells Drilling

J. T. Sneed, Jr., Cadman et al 1.
J. T. Sneed, Jr., Lee Flowers 1.
J. T. Sneed, Jr., Phillips Pet. and Landreth Prod. Co. 1.
J. T. Sneed, Jr., Moore Oil Co. 1.

POTTER COUNTY

Wells Drilling

Lee Bivins, Prairie O. & G. Co. 1.

CARSON COUNTY

Rigs

E. S. Polling, Amatex Oil 1.
Burnett Est., American Ref. Co. 7.
Burnett Est., Magnolia Pet. Co. 3.
Burnett Est., The Texas Company 8.

Wells Drilling

Bivins "B," Amarillo Oil Co. 3.
Burnett Est., American Ref. Co. 6.
Burnett Est., B. S. Barnes 1.
Burnett Est., J. S. Cosden 1.
Burnett Est., Gates Oil 2.
Burnett Est., Magnolia Pet. Co. 2.
Burnett Est., Marland Oil Co. 1 "B."
Burnett Est., Marland Oil Co. 5.
G. W. Witter, McFarland & Thomas 1.
M. C. Burnett, The Texas Comuany 4.
J. C. McConnell, Young & Patrick 1.

GRAY COUNTY

Rig

Worley & Reynolds, Wilcox-Pampa Oil Co. 4.

Wells Drilling

Merten Bros., Clark & Baldridge 1.
W. J. Brown, The Texas Company 1.
G. H. Saunders, The Texas Company 2.
Combs & Worley, Wilcox-Pampa Oil Co. 2.
Worley & Reynolds, Wilcox-Pampa Oil Co. 3.

WHEELER COUNTY

Rigs

H. C. Phillips, Gibson Oil Corp. 2, 3.
J. M. Shelton, Midwest Ref. Co. 1.

Wells Drilling

Kachelhoffer, McFarland & Thomas 1.
G. W. Porter, Midwest Exp. Co. 2.
Roger O'Gorman, Hal H. Vaughan 1.

COLLINGSWORTH COUNTY
Wells Drilling
Hughes Est., Continental Oil Co. 1.
SWISHER COUNTY
Well Drilling
L. M. Woodward, Overson & Keagans 1.
HALL COUNTY
Well Drilling
T. R. Fuston, Hudspeth & Taylor 1.
DALLAM COUNTY
Well Drilling
James, James et al 1.
SHERMAN COUNTY
Rigs
Lee Bivins, Eclipse Drlg. Co. 1.
Lee Bivins, Get Oil Co. 1.
ROBERTS COUNTY
Well Drilling
Mrs. Ledrick & Sons, Phil Engle 1.

EAST CENTRAL TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Anderson	2	0	2	0	0	1	1
Henderson	1	0	1	0	0	3	3
Navarro	1	0	1	0	0	5	5
Limestone	2	50	1	0	2	9	11
Cherokee	1	0	1	0	0	2	2
Hunt	1	0	1	0	0	2	2
Ellis	1	0	1	0	0	1	1
Freestone	0	0	0	0	1	2	3
Miscellaneous	0	0	0	0	0	6	6
Total Apr.	9	50	8	0	3	31	34
Total Mar.	6	10	5	0	5	27	32
Difference	3	40	3	0	2	4	2

MISCELLANEOUS
Wells Completed
Anderson County—
Lenn, Elkhart Petroleum 1 ..... dry
Greenwood, Navarro Oil Co. 1 ..... dry
Henderson County—
Dansby, O. N. Billings et al 1 ..... dry
Navarro County—
Elliott, DeArmond et al 1 ..... dry
Limestone County—
Boyd, Pure Oil, 26 ..... dry
Wright, J. D. Sweeney et al 1 50
Cherokee County—
Clapp, Collington et al 3 ..... abd
Hunt County—
Robinson, Rycade Oil 1 ..... dry
Ellis County—
Ennis Water Co., Shubert & Scott 1 .... dry

Wells completed 9
Production 50
Dry 8

Rigs and Wells Drilling
Rigs
Freestone County—
Bounds, Patterson Lake Oil & Gas 1.
Limestone County—
Hargrove, Eisenmayer 1.
Locke, Swearingen & Collicotte 1.
Wells Drilling
Wells marked * were shut down.
Anderson County—
Smuller, Navarro Oil 1.
Cherokee County—
Ousley, Humphreys Oil 1.
Clapp, Collington et al 4.
Ellis County—
Griffiths, Simms Oil 1.
Falls County—
Kelsey, Heflin et al 1*
Peacock, High Banks Oil 1*
Freestone County—
Pickens, Kechi Petroleum 1*.
Peacock, High Banks Oil 1*.
Sterrett, Fred Heine 1*.
Bounds, F. Haynes 3.
Martin, Evans et al 1.
Hill County—
Jones, Eagoe Drilling Co. 1.
Hopkins County—
Brooks, Kelsey et al 1*.
Hunt County—
Barnett, Tullall & Kelsey 1*.
Hicks, Gulf Production Co. 1*.
Kaufman County—
Williamson, J. D. Harper 1*.
Limestone County—
Richardson, Wells et al 1*.
Lidley, Pure Oil 3.
Wright, J. D. Sweeney 1 (sand).
Desenberg, Magnolia Pet. 8.
Rose, Transcontinental Oil 1 (sand).
Ellis, J. K. Hughes, 18*.
DeLong, Reiter-Foster et al 1.
Curry, Patty Kosse 1.
Head, Morley & Morley 1*.
Milan County—
Brown, Allen & Harper 1.
Navarro County—
Slaughter, Kerr & Gillette 1.
Kenner, Penn, Black & Atlantic O. P. 1.
Fullwood, Doctor Johnson et al 1.
McClelland, McDonald Bros 2*.
Longbotham, Snowden & McSweeney 13*.
Rigs, 3; wells drilling, 31; total, 32.

SOUTHWEST TEXAS

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Luling	1	300	0	0	0	3	3
Mirando	26	3,000	3	12	7	18	25
Somerset	3	28	0	0	1	3	4
Rockdale-Minerva	3	75	0	0	4	9	13
Miscellaneous	1	115	8	2	19	59	78
Total Apr.	34	3,518	11	14	31	92	123
Total Mar.	52	8,142	7	16	24	72	96
Difference	18	4,624	4	2	7	20	27

WELLS COMPLETED
LULING
McKean, United North & South Oil 22. 300

Wells completed 1
Production 300

MIRANDO
WEBB COUNTY
Garza, Snowden & McSweeney 2 ..... gas
Crown Central Pet. 6 ..... gas
Killiam, Laredo Oil 10 ..... abd
———, G. M. Ball 3 100
Aviators, Three Rivers Oil 3 150
Webster, Associated Oil 3 ..... gas
Billings, J. W. Winch 1 ..... abd
Aviator, Crown Central Pet. 1-B 400
Bruni, Wynn et al 1 20

JIM HOGG COUNTY
Randado, Moody & Seagraves 1 75
Martinez, O. W. Killiam 3 ..... gas
Martinez, O. W. Killiam, 2 60
Holbein, Kisselman & Stalbans 25 .... gas
Martinez, Magnolia Pet. 11 60
Martinez, Magnolia Pet. 4 35
Martinez, Kisselman & Stalbans 27 500
Weber, Kisselman & Stalbans 1 1000
Holbein, K. & S., 29 ..... gas
Palacious, Moody & Seagraves 4 ..... gas
Holbein, K. & S., 28 ..... gas

COLE.BRUNI
Benavidas, O. W. Killiam 4 ..... gas
Benavidas, Cole Pet. 10 150
Benavidas, Cole Pet. 15 ..... gas
Cole, Cole Pet. 11 ..... abd
Benavidas, Cole Pet. 17 500
Cole, Sun Oil Co. 1 ..... gas

Wells completed 26
Production 3000
Gas 12
Abandoned 3

SOMERSET
Langley, Witherspoon Oil 11 8
Wells, Grayburg Oil 13 10
———, Frontier Oil 10 10

Wells completed 3
Production 28

ROCKDALE-MINERVA
Phillips, W. A. Jones, 3 30
Branch, Jennings Oil 14 30
Neihaus, Noack Oil 2 15

Wells completed 3
Production 75

LULING
Wells Drilling
Allen, United North & South 40.
McKean, United North & South 23.
Kelly, United North & South Oil 1 sd.
Rigs, 0; wells drilling, 3; total, 3.
MIRANDO
WEBB COUNTY
Rigs
Bruni, Crown Central Oil 9.
———, Gleason et al 1.
Lucas, Simms Oil 1.
———, Cullinan & Clark 1.
JIM HOGG COUNTY
Martinez, Magnolia Pet. 8, 9, 10.
WEBB COUNTY
Wells Drilling
Bruni, Crown Central 7, 8.
Bruni, Sun Co. 2.
Bruni, O. W. Killiam 1.
———, P. N. McCollough 1.
———, Hill & Perkins 1.
Bruni, Baney et al 1.
Car-Tex, Moody & Seagraves 2.
Car-Tex, Morgan Oil 1.
Car-Tex, United States O. & G. 1.
Car-Tex, J. W. Winch 2.
JIM HOGG COUNTY
Randado, Houston Gulf Gas 3.
Randado, Magnolia Pet. 2.
Martinez, Magnolia Pet. 11, 12.
Holbein, K. & S., 30, 31.
Hinnant, K. & S. 1.
Rigs, 7; wells drilling, 18; total, 25.
ROCKDALE-MINERVA
Rigs
Sterlsky, Roy Long, 3, 4, 5.
Urban, Noack Oil 3.
Wells Drilling
Phillips, Garrett et al 1.
Neihaus, Bynum Oil 12, 13.
Urban, Noack Oil 2.
Siedl, Fritz Fuchs 1.
Phillips, Texas Pet. 5.
Sterlsky, United Prod. 3.
Sterlsky, Roy Long, 1, 2.
Rigs, 4; wells drilling, 9; total, 13.

GULF COAST

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Boling	7	14,750	2	0	14	24	38
Batson	3	30	1	0	2	3	5
Blue Ridge	2	900	0	0	2	2	4
Barber Hill	0	0	0	0	1	1	2
Big Creek	0	0	0	0	0	3	3
Dayton	0	0	0	0	0	2	2
Damon Mound	0	0	0	0	1	0	1
Edgerly (La.)	2	430	0	0	1	2	3
Goose Creek	7	630	1	0	2	11	13
Humble	4	1,650	1	0	2	5	7
Hull	10	7,675	1	0	7	15	22
High Island	2	50	1	0	1	4	5
Jennings (La.)	3	450	1	0	1	3	4
Markham	0	0	0	0	0	3	3
Lockport (La.)	2	4,700	0	0	2	6	8
Nash	0	0	0	0	0	6	6
Orchard	0	0	0	0	0	1	1
Orange	9	5,875	3	0	3	15	18
Pierce Jct.	2	1,750	0	0	1	2	3
Piedras Pintas	2	0	2	0	0	4	4
Spindletop	4	8,125	1	0	3	5	8
Saratoga	1	5	0	0	0	3	3
Sour Lake	7	95	1	0	3	5	8
South Liberty	2	30	1	0	1	2	3
Vinton (La.)	5	550	1	0	0	8	8
W. Columbia	2	25	1	0	0	1	1
Miscellaneous	10	500	8	0	19	40	59
Total Apr.	87	48,310	26	0	66	176	242
Total Mar.	96	27,047	39	0	49	145	194
Difference	9	21,263	13	0	17	31	48

WELLS COMPLETED
BOLING
Hawes, Humble Oil & Refg. 5 400
Floyd, Oxford Oil 2 3500
Taylor, Sinclair Oil & Gas 3 50
Taylor, Atlantic O. P. Co. 2 (wo) 1200
Borden, Gulf Prod. 1 ..... abd
Taylor, The Texas company 5 ..... sw
Taylor, The Texas company 7 6000

Wells completed 7
Production 14,750
Abandoned and saltwater 2

BATSON
Wing, Gulf Prod. 166 20
State land, East Batson Oil 12 100
Hooks, Sterling Oil 3 ..... sw

Wells completed 3
Production 120
Saltwater 1

BLUE RIDGE
Blakely, Gulf Prod. 13-C (wo) 850
Luscher, Gulf Prod. 6 50

Wells completed 2
Production 900

EDGERLY
Bright-Penn, Gulf Refg. of La. 24 350
Hunter, Edgerly Pet. 1 40
Fairchilds, Lake Charles Pet. 5 (wo) ... 40

Wells completed 3
Production 430

GOOSE CREEK
Smith, Humble Oil & Refg. 67 ..... sw
Bartlett-Smith, Sun Co. 18 250
Peninsula, Humble Oil & Refg. 23 40
Wright, Gulf Prod. 5 40
Galliard, Gulf Coast-Crown Central Oil 24 50
Dannebaum, La Rue Oil 1 ..... abd
Beaumont, Gulf Prod. 21 250

Wells completed 7
Production 630
Abandoned 1

HUMBLE
River, Sun Co. 31 1500
Burt, Barclay & Meadors 5 150
Fee, The Texas company 1 ..... abd
House, West Prod. 5 ..... gas

Wells completed 4
Production 1650
Abandoned 1

HULL
Dolbear, Republic-Houston Oil, 119 125
Taylor, Mecom Oil, 8 175
Barngrover, Empire Gas & Fuel, 18 .. 2500
Dolbear, Republic-Houston Oil, 122.... 2300
Stengler, Yount-Lee Oil 9 50
Baldwin, Gulf Prod. 16 1000
Phoenix, Gulf Prod 13 (wo) 150
Thomas, Gulf Prod. 5 275
Dolbear, Republic-Houston Oil, 51 .... abd
Phoenix, Gulf Prod. 66 1100

Wells completed 10
Production 7675
Abandoned 1

JENNINGS
J. C. ——— Gulf Refg. of La. 38 ..... abd
S. F. S., Jennings Pet. 2 250
S. F. S., Port City Oil 5 200

Wells completed 3
Production 450
Abandoned 1

HIGH ISLAND
Smith, Gulf Prod. 4 ..... abd
Cade, Sun Co. 6 50

Wells completed 2
Production 50
Abandoned 1

LOCKPORT
Miller, Vacuum-Gulf Cos. 5 3000
Friedberg & Wolf, Vacuum-Gulf Cos. 2 (wo) 1700

Wells completed 2
Production 4700

ORANGE
Chesson, Gulf Prod. 3-A 1800
Chesson, Texhoma Oil 4 ..... abd
Cow Bayou, Rycade Pet. 6-B 800
Chesson, Texhoma Oil 10 1200
Myers, Humble Oil & Refg. 5 75
Chesson, Orange Pet. 11 ..... abd
Hager fee, Gulf Prod. 21 2000
Hager fee, Gulf Prod. 3, (wo) ..... abd
Chesson, Texhoma Oil 7 ..... sw

Completed 9
Production 5875
Abandoned and salt water 3

PIERCE JUNCTION
Settegast, Rio Bravo Oil 2-P 250
Taylor, Gulf Prod. 9 (wo) 1500

Wells completed 2
Production 1750

PIEDRAS PINTAS
Walsh, Humble Oil & Refg. 5 ..... sw
Walsh, Houston-Gulf Gas 1 ..... sw

Wells completed and saltwater 2

SPINDLETOP
McFadden, Yount-Lee Oil 4 5000
Gladys, Yount-Lee Oil 3 3000
Terrell, Lillian Oil 3 ..... abd
Gladys, Gulf Prod. 222 75

Wells completed 4
Production 8125

SARATOGA
Ellis-Pope, Fountain Prod. 1 5

Wells completed 1
Production 5

SOUR LAKE
Fee, Minor Oil 72 30
Fee, Minor Oil, 76½ 15
Bailey, Barclay Oil 1 5
Davis, Peveto Oil 6 5
Fee, The Texas Co. 230 (wo) 20
Hardin, Lake View Oil, 47 ..... abd
Bashara, Lake Graham Oil 7 20

Wells completed 7
Production 95
Abandoned 1

SOUTH LIBERTY
Deussen, Associated Oil, 2 15
Condit, Sinclair Oil & Gas 3 15

Wells completed 2
Production 30

VINTON
Rescue, Vinton Pet. 18 100
Gray, Vinton Pet. 55. 5. 100
Johnson, Atkins et al 1 50
Gray, Gulf Refg. 3 300
G. N. G., Gulf Refg. 65 ..... abd

Wells completed 5
Production 550
Abandoned 1

WEST COLUMBIA
Masterson, Hyde Prod. 1 25
LaRevus, Humble Oil & Refg. 1 .... abd
Wells completed 2
Production 25
Abandoned 1

MISCELLANEOUS
Refugio County—
O'Connor, Houston Oil 1 ..... abd
Duval County—
Benavidas, Houston Oil 2 250
Benavidas, Houston Oil 3 250
Harquist, Humble Oil & Refg. 1 ..... abd
Chambers County—
Drought, W. C. Moore 1 ..... abd
Jefferson County—
Big Hill, Sun-Dyson, Houston Oil 1 .... abd
Harris County—
Hockley, Warren, The Texas company 6, 7 ..... abd
Victoria County—
O'Connor, Houston Oil 1 ..... abd
Brazoria County—
Kroppe, Roxana Pet. 1 ..... abd
Calcasieu Parish, South Louisiana—
Industrial Lumber, Gulf Refg. 2 ..... abd

Wells completed 10
Production 500
Abandoned 8

BOLING
Rigs
Hawes, Humble-Gulf 7, 8.
Floyd, Oxford Oil 4, 5.
Taylor, Sinclair Oil & Gas 6.
Taylor, Sun Co. 6, 7, 8.
Farmer, The Texas company 1.
Farmer, Sun Co. 1.
Taylor, The Texas company 9, 10.
Felder, The Texas company 1.
Taylor, Atlantic O. P. 6.
Wells Drilling
Taylor, Atlantic O. P. 3, 4.
Mullins, J. K. Hughes Dev. 1.
Hawes, Humble-Gulf 2, 3, 4, 6.
Floyd, Oxford Oil 3.
Taylor, Sinclair O. & G. 1, 2 wo; 4, 5.
Taylor, Sun Co. 2, 3, 4, 5.
Taylor, The Texas company 5, 8.
Floyd, The Texas company 1.
Hooper, Vacuum Oil, 1, 2, 3.
Mick, Gulf Prod. 1.
Wolfin, Houston-Gulf Gas 1.
Rigs, 14; wells drilling, 24; total, 38.
BARBER HILL
Rigs
Fisher, Mills Bennett, 2.
Wells Drilling
Japhet, Mills Bennett 5.
Rigs, 1; wells drilling, 1; total, 2.
BATSON
Rigs
Hodges, Kirby-Capitol Oil 5.
Choate, Gulf Prod. 60.
Wells Drilling
Hodges, Kirby-Capitol 4 (wo).
Hooks, Sterling Oil 4.
Wing, Gulf Prod. 167.
Rigs, 2; wells drilling, 3; total, 5.
BLUE RIDGE
Wells Drilling
Robinson, The Texas Co. 10.
Blakely, Gulf Prod. 7.
Wells drilling, 2.
BIG CREEK
Wells Drilling
Wheat, Gulf Prod. 10.
Davis, Gulf Prod. 27, 28.
Wells drilling, 3.
DAYTON
Wells Drilling
Fee, Old Colony Oil, 15.
Schlender, Harrison Oil 2.
Wells drilling, 2.
DAMON MOUND
Rigs
Bryan, Hamm & Co. 3.
Rigs, 1.
EDGERLY
Rigs
Bright-Penn, Gulf Refg. 31.
Wells Drilling
Hunter, Rex Oil 2.
Moore, Green Oil 7.
Rigs, 1; wells drilling, 2; total, 3.
GOOSE CREEK
Rigs
Wright, Sun Co. 8.
Beaumont, Gulf Prod. 33.
Wells Drilling
Smith, Humble Oil & Refg. 67, 68, 69 (wo).
Peninsula, Humble Oil & Refg. 23.
Scorrgen, M. & B. Oil, 4.
Bryan, Powell Oil 6.
Chapman-Bryan, Gulf Prod. 6.
Hirsch, Gulf Prod. 5.
Wright, Gulf Prod. 7.
Stateland, Gulf Prod. 8, 10.
Rigs, 2; wells drilling, 11; total, 13.
HULL
Rigs
Dolbear, Republic-Houston Oil, 125, 126, 127, 128.
Merchant, Humble Oil & Refg. 5.
Taylor, Mecom Oil 9.
Barngrover, Empire Gas & Fuel 18.
Wells Drilling
Dolbear, Republic-Houston Oil, 120, 123, 124.
Guedry, Humble Oil & Refg. 21.
Sterling, Humble Oil & Refg. 3.
Abel, Humble Oil & Refg. 4-B.
Taylor, Mecom Oil 2 (wo).
Hannha, The Texas company 1.
Merchant, The Texas company 10.
Thomas fee, Gulf Prod. 3 (drg dpr).
Scarborough, Gulf Prod. 17.
Morris-Phillips, Gulf Prod. 22.
Baldwin fee, Gulf Prod. 17.
Phoenix, Gulf Prod. 27 (wo); 65, 67.
Rigs, 7; wells drilling, 15; total, 22.
HUMBLE
Rigs
River, Sun Co. 33, 34.
Wells Drilling
Bailey, Hamm & Co. 1.
Perkins, Brane Oil, 5.
Williams, Martin & Drake 1.
Morris, Johnson et al 2.
West, Cahill et al 1.
Rigs, 2; wells drilling, 5; total, 7.
HIGH ISLAND
Rigs
Smith, Gulf Prod. 2 (wo).
Wells Drilling
Smith, Gulf Prod. 5.
Lockhart, The Sun Co. 3.
Cade, Sun Co. 8, 10.
Rigs, 1; wells drilling, 4; total, 5.
JENNINGS
Rigs
Jennings-Clement, Gulf Refg. 31.
Wells Drilling
Latrielle, The Texas Co. 1 (wo); 95.
Crowley, Coastal Fuel Oil, 91.
Fontetnot, General Pet. 6.
Rigs, 1; wells drilling, 3; total, 4.
LOCKPORT
Rigs
Miller, Vacuum-Gulf, 10, 11.
Wells Drilling
Miller, Vacuum-Gulf, 7, 8, 9.
Farquhart, Vacuum-Gulf, 1, 3.
Friedberg & Wolf, Vacuum-Gulf 1 (dpg).
Lock-Moore, Vacuum-Gulf 4.
Rigs, 2; wells drilling, 6; total, 8.
NASH DOME
Wells Drilling
Nash, Rycade Pet. 6, 7.
Wisdom, Rycade Pet. 2, 6.

Flessner, Rycade Pet. 2, 3.
Wells drilling, 6.

ORCHARD
Wells Drilling
Moore, Gulf Prod. 6.
Wells drilling, 1.

ORANGE
Rigs
Chesson, Orange Pet. 12 (wo).
Berwick, Orange Pet. 1 (wo).
Hager fee, Gulf Prod. 23.
Wells Drilling
Peveto, Gulf Prod. 9 (dpg)
Hager, Gulf Prod. 3 (wo).
Hager, Gulf Prod. 22.
Hager, Atlantic O. P. 4 (wo).
McLean, Brownie Babbittee Oil, 5.
Carbello, Rex Pet. 4.
Chesson, Humble Oil & Refg. 25-A.
McGuire, Kishi Dev. 7.
Williams, Orange Pet. 1 (dpg).
Cow Bayou, Rycade Pet. 2-B, 5 , 8.
Bellisle, Sun Co. 1 (dpg).
Jackson Supreme Oil 1 (wo).
Chesson, Texhoma Oil, 7.
Rigs, 3; wells drilling, 15; total, 18.

MARKHAM
Wells Drilling
Kountz, Rycade Pet. 1.
Gray, Houston-Gulf Gas 2.
Myers, Houston-Gulf Gas 3.

PIERCE JUNCTION
Rigs
Settegast, Rio Bravo Oil, 2-PF.
Wells Drilling
Cain, Navarro Ill 2.
Taylor, Gulf Prod. 11 (dpg).
Rigs, 1; wells drilling, 2; total, 3.

PIEDRAS PINTAS
Wells Drilling
Walsh, Humble Oil & Refg. 5 sd.
Walsh-Houston-Gulf Gas 1 sd.
———, Grayburg Oil 1.
———, Hughes Dev. 1.
Wells drilling and shut down, 4.

SPINDLETOP
Rigs
McFadden, Yount-Lee Oil 5.
Gladys, Yount-Lee Oil 3.
Trembly, Seven Oil 1.
Wells Drilling
Gladys, Gulf Prod. 190 (dpg).
Trambly, Baker Oil 13.
National, Unity Oil 44.
Higgins, Wilson & Broach 48.
Trembly, Porch & Telshaw 3.
Rigs, 3; wells drilling, 5; total, 8.

SARATOGA
Wells Drilling
Teel, Vacuum Oil 3.
Ogden, Paggi Brothers 3.
Fountain, Rio Bravo Oil 5.
Wells drilling, 3.

SOUR LAKE
Rigs
Griffith, Humphrey Corp. 1. 2.
Fee, Minor Oil, 77.
Wells Drilling
Fee, Gilbert Oil, 98.
Libbie, Sun Co. 1.
Gilbert, Yount-Lee Oil 3.
Griffith, Humphrey Corp. 3.
Carpenter, Peveto Oil 12.
Rigs, 3; wells drilling, 5; total, 8.

SOUTH LIBERTY
Rigs
Welder, Humble Oil & Refg. 2.
Wells Drilling
LeCourse, Coastal Oil 1.
Deussen, Humble Oil & Refg. 1.
Rigs, 1; wells drilling, 2; total, 3.

VINTON
Wells Drilling
Gray, Marrs, McLean 10.
Stary, Gulf Refg. 37.
Gray, Gulf Refg. 1-A.
Gray, The Texas company, 1-C, 1-A, 15 (sd).
Parks, Wilson & Broach 11.
Vincent, Rex Pet. 3.
Wells Drilling, 8.

WEST COLUMBIA
Wells Drilling
Arnold, The Texas company 22.
Wells drilling, 1.

MISCELLANEOUS
BRAZORIA COUNTY
Rigs
Bryan, Hamm & Co. 2.
Wells Drilling
Allen, Roxana Pet. 2.
Clements, Roxana Pet. 1.

CHAMBERS COUNTY
Wells Drilling
Wallisville, Young et al 1 sd.
Lawrence, C. T. Rucker 1, 2 sd.

FORT BEND COUNTY
Wells Drilling
Davis, Long Point, Gulf Prod 8, 10.
Frederick, Neilan Inc. 2 sd.
———, Harry Pennington 1 sd.

HARRIS COUNTY
Rigs
Spring Road, Brane Oil 1.
Wells Drilling
Peggy Lake, Armstrong & Mitchell 1.

HARDIN COUNTY
Wells Drilling
Weiss, Humble Oil & Refg. 1-A.
Hardin, Little Texas Farm Assn. 1 sd.

JEFFERSON COUNTY
Wells Drilling
Burrell, Gulf Prod. 1.
Bordages, Gulf Prod. 2.
Near Beaumont, Deutser et al 1.

JACKSON COUNTY
Wells Drilling
Drushell, Drushell et al 2.

GRIMES COUNTY
Rigs
Near Singleton, Local parties 1.
Wells Drilling
Near Piedmont, Briant & Huber 1.

KLEBERG COUNTY
Wells Drilling
SW of Kingsville, Humble Oil & Refg. 5.

LIBERTY COUNTY
Wells Drilling
Mitchell, Premium Oil 1.
Dayton Oil 10.

MATAGORDA COUNTY
Wells Drilling
Craig, Hawkins dome, Gulf Prod. 4.
Hawkins, Shepherd Mound Oil 2.
Sanborn Gulf Prod.

NEWTON COUNTY
Wells Drilling
Sabine Tram, Humble Oil & Refg. 1.

ORANGE COUNTY
Rigs
Benner, Gulf Prod. 2.
Wells Drilling
Gum Island, Orange Prod. 2.
Deweyville, Humble Oil & Refg. 2.

REFUGIO COUNTY
Rigs
Rooke, Houston Oil, 5, 6.
Wells Drilling
Heard, Houston-Gulf Gas 5.
Rooke Houston Oil 4.

STARR COUNTY
Wells Drilling
Kelsey, Dauchey & Bryant 1.
Guerra, O. W. Killam, 1 sd.

SAN PATRICIO COUNTY
Wells Drilling
White Point, Houston Gulf Gas 1.
Campbell, John Sigmund 7.

NUECES COUNTY
Wells Drilling
Allen, H. H. Givans 1.
———, The Texas company 1.

ORANGE COUNTY
Wells Drilling
Gum Island, Orange Prod. 1 (dpg).
Deweyville, Humble Oil & Refg. 1.

NEWTON COUNTY
Wells Drilling
Sabine Tramway, Humble Oil & Refg 1.

WALLER COUNTY
Rigs
Pattison, George Newman 2.
Wells Drilling
Near Waller, H. L. Maxwell 1.

WASHINGTON COUNTY
Rigs
West of Brenham, Pruitt et al 1.
Wells Drilling
Near Burton, Stengler et al sd.
SW of Brenham Fitzsimmons Co. 3.

SHELBY COUNTY
Rigs
NW of Center, Fort Oil 1.
Wells Drilling
Shelbyville, Roy Anderson 1 sd.
———, Crusader Oil 1.

WHARTON COUNTY
Rigs
Dennis, Humphrey Corp. 1.
Wells Drilling
Glenn Flora, Sorelle et al 1.
Dennis, J. W. Rich 2.
Brown, J. W. Rich 1.

SOUTH LOUISIANA
Calcasieu Parish—
Rigs
Stark dome, Gulf Refg. 3.
McCoy, Union Sulphur 2.
Wells Drilling
Sweet Lake, Pure Oil 3.
Stark, Standard of La., 2.
Naval, Union Sulphur 1.
Cameron Parish—
Wells Drilling
Hackberry, Yount-Lee Oil 2, 3.
Iberia Parish—
Wells Drilling
Jefferson Island, Union Oil & Gas 1.
Jeff Davis Parish—
Rigs
Kratzer, Osage Oil 1.
Wells Drilling
Ervine, Yount-Lee Oil 12.
La Fourche Parish—
Rigs
Price, E. F. Simms & Co. 1.
St. Mary Parish—
Wells Drilling
Premier, Union Sulphur Co. 10.
Glenwild, Union Sulphur 1.
St. Martin Parish—
Wells Drilling
Atchafalaya, Rycade Pet. 1.
Evangeline Parish—
Rigs
Tremine, The Texas company 1.
Rigs, 9; wells drilling, 40; total, 49.

N. LOUISIANA-ARKANSAS

NORTH LOUISIANA

Summary of Field Operations

Parish—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Bossier	7	40	3	1	2	5	7
Caddo	23	338	2	4	8	33	41
La Salle	63	9,880	5	0	27	49	76
Monroe district	4	0	0	4	4	11	15
Webster	6	345	1	1	9	11	20
La. wildcats	0	18	6	0	4	13	17
De Soto	0	0	0	0	4	5	9
Total Apr..	103	10,621	17	10	58	127	185
Total Mar..	90	7,594	19	6	16	99	115
Difference..	13	3,027	2	4	42	28	70

ARKANSAS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Union	98	13,659	17	4	28	91	119
Ouachita	26	1,828	3	2	2	18	20
Nevada	11	1,575	3	0	2	6	8
Columbia	1	10	0	0	3	4	7
Ark. wildcats	5	20	4	0	1	9	10
Total Apr...	141	17,092	27	6	36	128	164
Total Mar..	77	6,047	22	8	22	100	122
Difference..	64	11,045	5	2	14	28	42

LOUISIANA

WELLS COMPLETED

Bossier Parish—
15-19-11 Connell, Autrey et al 2 ..... dry
22-19-11 Snyder, Autrey et al 1 5
14-19-11 Larkin, Hanby Trustee 2 10
23-19-11 Bliss & Wetherbee, Humble Oil & Refg. Co. 29 ..... dry
15-19-11 Bodcau, Louisiana Oil & Refg. Co. B-30 25
28-19-11 McDade, Osborne et al 2 ..... dry
23-19-11 Smith, G. W. Wetherbee 1 .... gas

Wells completed 7
Production 40
Gas wells 1
Production 1,000,000
Dry 3

Caddo Parish—
23-22-15 Jolly, Brewster & Trahan 1 .. 20
21-22-15 Donovan, Dixie Oil Co. 6 20
21-22-15 Donovan, Dixie Oil Co. 6 8
11-21-15 Robertshaw, Dixie Oil Co. 73 .. 12
27-21-15 Wadkins, Double I. I. O Co. 5 30
15-21-15 Herndon, Gulf Refining Co., 7 5
16-20-16 Ferry Lake, Gulf Refining Co. 227 ..... dry
22-20-16 Ferry Lake, Gulf Refining Co. 228 50
15-20-16 Ferry Lake, Gulf Refining Co. 229 ..... gas
15-21-15 Vespy, Lewis Oil Corp. 6 5
8-20-15 Levee Board, Magnolia Petroleum Co. 2 ..... gas
22-21-15 Raines, Magnolia Petroleum Co. 23 45
22-21-15 Raines, Magnolia Petroleum Co. 24 8
15-21-15 Red Bayou, O'Dell & Lawton 6 10
15-21-15 Red Bayou, O'Dell & Lawton 5 15
15-21-15 Hampton, Mrs. N. M. Hancock 2 10
10-21-13 Thigpen-Herold, B. L. Spell 1 .. dry
3-20-16 Russell, The Texas company 11 50
14-21-15 Noel, The Texas company, B-12 5
16-15-12 School Board, The Texas Co. 1 gas
23-21-15 C. M. L. Co., The Texas company 23 30
33-21-16 Levee Board, The Texas Co. 59 15
35-16-12 Knight, Woodley Petroleum Co. 1 ..... gas

Completions 23
Production 338
Gas wells 4
Production 14,500,000
Dry 2

La Salle Parish—
36-10-1e Tannehill, Arizola Petroleum Co. 1 100
36-10-1e Tannehill, Arizola Petroleum Co., 2 100
25-10-1e King, J. S. Abercrombie & Co. 3 250
25-10-1e King, J. S. Abercrombie & Co. 5 300
25-10-1e King, J. S. Abercrombie & Co. 1 150
23-10-1e Tullos, Atlantic Oil Producing Co. 5 ..... dry
26-10-1e Tullos, Atlantic Oil Producing Co. 3 ..... dry
26-10-1e Renfroe, Bailey et al 1 300
7-10-1e Urania, B & B Drilling Co. 1 .. 400
25-10-1e Russell, O. W. Clark 1 100
26-10-1e Russell, O. W. Clark, A-2 30
26-10-1e Russell, O. W. Clark 2 100
25-10-1e Bass, O. W. Clark 1 20
25-10-1e Russell, Cook Drilling Co. 2 .. 150
25-10-1e Russell, Cook Drilling Co. 1 .. 200
24-10-1e Urania, Dixie Oil Co. 4 20
36-10-1e Keith, Explorers Oil Corp. 1 .. 30
23-10-1e Pendarvis, Galloway et al 3 .. 25
26-10-1e Tyler, Greenwall et al 1 100
26-10-1e Volk, Hamilton & Musick 1 .. 200
25-10-1e Bennett, Hamilton et al 3 400
26-10-1e Tullos heirs, Hunt et al 3 75
26-10-1e Tullos heirs, Hunt et al 4 100
26-10-1e Tullos heirs, Hunt et al 5 70
26-10-1e State, Hunt et al 1 70
26-10-1e Tullos heirs, Hunt et al 7 60
18-10-2e Winberry, Hunt, McCurry & Zoder 1 25
26-10-1e Perrin, Jones & Womack 1 .. 100
35-10-1e Tremont, Louisiana Oil & Refining Co. A-5 150
28-10-1e Tremont, Louisiana Oil & Refining Corp. A-4 ..... dry
24-10-1e Bass, Louisiana Oil & Refining Corp. 2 20
25-10-1e Tremont, Louisiana Oil & Refining Corp. B-9 20
25-10-1e Tremont, Louisiana Oil & Refining Corp. B-30 30
25-10-1e Tremont, Louisiana Oil & Refining Corp. B-29 25
25-10-1e Tremont, Louisiana Oil & Refining Corp. B-15 75
25-10-1e Bass, Long et al 1 40
25-10-1e Zimmerman, Love et al, 1 100
25-10-1e Zimmerman, Love et al 2 150
26-10-1e Herbert, Mitchell et al 1 800
26-10-1e Tullos, Natural Gas & Fuel Co. 5 400
26-10-1e Tullos, Natural Gas & Fuel Co. 2 150
26-10-1e Tullos, Natural Gas & Fuel Co. 3 15
26-10-1e Tullos, Natural Gas & Fuel Co. 1 75
26-10-1e Russell, Natural Gas & Fuel Co. 4 150
26-10-1e Tullos, Natural Gas & Fuel Co. 4 75
26-10-1e Russell, Natural Gas & Fuel Co. 1 120
18-10-2e Urania, Ohio Oil Co. 4 1000
18-10-2e Urania, Ohio Oil Co. 5 100
18-10-2e Urania, Ohio Oil Co. 6 1000
25-10-1e Fee, Ozley et al 1 50
25-10-1e Russell, Sherman et al 1 100
26-10-1e Clinton, Standard Drilling Co. 2 100
19-20-2e Urania, Standard Oil Co. 3 40
25-10-1e Russell, Roberts et al 2 150
25-10-1e Russell, Roberts et al 3 100
5-10-2e Urania, Rowe et al 1 ..... dry
19-10-2e Urania, Trio Oil Co. 1 ..... dry
25-10-1e Norrid, George W. Wetherbee 1 20
25-10-1e Norrid, George W. Wetherbee 2 80
25-10-1e Russell, McWilliams & Foster 1 800
26-10-1e Herbert, Williams Drilling Co. 2 30
36-10-1e King, O. F. Whittaker, 2 40
18-10-2e Urania, Zeigen et al 3 400

Completions 63
Production 9880
Dry 5

Monroe District—
12-18-4e Millie Roberts, G. E. Jordan, 1 gas
30-19-5e Fee, J. M. Huber 7 ..... gas
11-18-4e Filihol, Pioneer Oil & Gas Co. 1 ..... gas
12-21-4e Crossett, Natural Gas Producing Co. 17 ..... gas

Completions 4
Production 14,600,000

Webster Parish—
21-21-10 Robins, Alabama Petroleum Co. B-1 100
30-23-9 Miller, Arkansas Natural Gas Co. 1 ..... gas
21-21-10 Doyle, Gulf Refining Co. 1 35
16-21-10 Sidney, Ohio Oil Co. 6 50
27-21-10 Sandlin, Ohio Oil Co. 4 ..... abd
26-21-10 Gray, Ohio Oil Co. 22 60
21-21-10 Bodcau, Ohio Oil Co. 36 100
13-21-10 Bodcau, Louisiana Oil & Refining Corp. 4 ..... abd

Completions 6
Production 345
Gas wells 1
Production 6,000,000
Dry 1

LOUISIANA WILDCATS
27-10-1e Albritton, Standard Oil Co. 2 abd
27-10-1e Albritton, Standard Oil Co. 1 dry
28-10-2w La., Central, J. H. Williams 1 ..... abd
30-21- 7 Shaw, Standard Oil Co. 4 18
22-23- 5 Cupp, Triangle Drilling Co. 1 dry
36-12-11 Harp, J. C. Walton, 1 ..... dry
24- 4-12 Pickering, Toro Petroleum Co. 1 dry

Completions 7
Production 18
Dry 6

La Salle Parish—
Wells Drilling
25-10-1e M. M. King, J. S. Abercrombie and Co., 4, 6, 9.
36-10-1e Tannehill, Arizola Petroleum Co. 2, 3, 4.
13-10-1e Urania, Ayers et al 3.
7-10-2e Urania, B & B Drilling Co. 2.
25-10-1e Urania, Beckman et al, 6, 7.
26-10-1e Smith, W. H. Burckhartt, 1.
25-10-1e Kyle & Davis, Carlton & Thorpe, 1.
23-10-1e Tullos, O. W. Clark 3.
26-10-1e Herbert, Cox et al 1.
24-10-1e Urania, Dixie Oil Co. 5.
25-10-1e King, J. O. Graves 1.
7-10-2e Urania, A. E. Hudson 3.
26-10-1e State, Hunt et al 3.
26-10-1e Tullos heirs, Hunt et al 8, 9.
27-10-2e Louisiana Central Lbr. Co., S. S. Hunter 2.
25-10-1e Russell, H. M. Jones 4.
25-10-1e Norrid, Jones et al, 1.
19-10-2e Urania, Keene & Wolf 3.
25-10-1e Russell, Keisker trustee 1.
26-10-1e Fee, Kimbrough & Willis 1.
25-10-1e Tremont, Louisiana Oil & Refining Co., B-31.
26-10-1e Ratcliff, Little River Oil Co. 1.
25-10-1e Russell, McWilliams & Foster 2.
25- 9-2e J. M. Cotton, Minnesota Oil Corp. 1.
26-10-1e Russell, Mistrot et al 1.
26-10-1e Russell T., Natural Gas & Fuel Co. B-1.
26-10-1e Tullos H., Natural Gas & Fuel Co. 1, 2, 6, 7.
18-10-2e Urania, Natural Gas & Fuel Co. B-1.
26-10-1e Bryant & Harvey, Nelson et al 1.
24-10-1e Urania, Ohio Oil Co. 3.
16-10-2e Urania, Ohio Oil Co. 7.
25-10-1e Russell, Roberts et al, 4, 5.
25-10-1e Russell, Sherman et al 3.
13-10n-1e Urania, Standard Oil Co. 5.
18-10-2e Wimbley, Sterling Inc. 1.
26-10-1e H. Tullos, Geo. W. Wetherbee, 1.
26-10-1e Herbert, Williams Drilling Co., 3, 4.
8-10-2e Urania, Yeary & Bristol 1.
Shut Down
25-10-1e Tremont, Louisiana Oil & Refining Co. B-10, B-12.
16-11-2e Love, Wright et al 1.
Rigs
25-10-1e M. M. King, J. S. Abercrombie & Co. 7, 14.
36-10-1e Tannehill, Arizola Petroleum Co. 6.
26-10-1e Holmes, Bailey et al 1.
25-10-1e Odom, Carlton & Tharpe, 1.
26-10-1e Herbert, Cox et al 3.
25-10-1e Tullos, Daniels et al 2.
8-10-2e Hardtner-Tannehill, Degman & Youngblood 1.
27-10-1e Sanders, Dickinson et al 1.
36-10-1e Keith, Explorers Oil Corp. 2.
26-10-1e State, Hunt et al 2.
26-10-1e Tullos heirs, Hunt et al 6.
18-10-2e Wineberry, Hunt McCurry & Zoder 2.
24-10-1e Pendarvis, A. B. Jones 1.
25-10-1e Russell, H. M. Jones 3.
25-10-1e Zimmerman, Love et al 3.
18-10-2e Urania, Natural Gas & Fuel Co. B-3.
26-10-1e Bryant & Harvey, Nelson et al 1.
25-10-1e Russell, Roberts et al 6.
25-10-1e Russell, Sherman et al 2.
13-10-1e Urania, Standard Oil Co. 6.
19-10-2e Urania, Trio Oil Co. 2.
36-10-1e King, W & H Oil Co. 1.
36-10-1e King, O. F. Whittaker 3.
26-10-1e Herbert, Williams Drilling Co. 5.
36-10-1e Doughty, Youngblood et al 1.
25-10-1e W. O. W., Youngblood et al 1.

Wells drilling 49
Wells shut down 3
Rigs 27

Bossier Parish—
Wells Drilling
14-23-14 Murray, Arkansas Fuel Oil Co. 1.
25-16-12 Caplis, Palmer Corp. 10.
17-18-11 Hale and Rumbough, Square Deal Oil Co. 1.
18-19-13 Kilburn, Woodley & Collins, 1.
14-23-12 L & A Oil Co., Woodley & Collins, 1
Shut Down
9-20-13 Bulkley, Benton Syndicate 1.
9-22-11 Bollinger, Doern et al 1.
23-19-11 Strange, Olmstead et al 10.
Rigs
17-18-11 Burkhalter, Henderson et al 1.
15-19-11 Smith, Autrey et al 1.

Wells drilling 5
Wells shut down 3
Rigs 2

Caddo Parish—
Wells Drilling
13-21-15 C. W. Lane, Arkansas Natural Gas Co. 1.
24-22-15 Hardman, H. J. Bussa, 1.
34-21-16 State, W. D. Chew, 3.
27-22-15 Jolly, Dixie Oil Co. 1.
7-20-15 Muslow, Dixie Oil Co. 15.
14-21-15 Muslow, Dixie Oil Co. 15.
14-21-15 Robertshaw, Dixie Oil Co. 71, 74.
23-22-15 Robertshaw, Dixie Oil Co. 71, 74.
23-22-15 Worley, Dixie Oil Co. 5.
17-21-14 Sellington, Gilliam Syndicate 1.
2-19-14 J. M. Byrd, Gulf Refining Co. 1.
16-20-16 L. B. Caddo, Gulf Refining Co., U-4, U-5.
16-20-16 Ferry Lake, Gulf Refining Co., 230.
13-21-15 Lane, Gulf Refining Co. 17.
35-21-15 Muslow, Gulf Refining Co. E-1.
14-21-15 Tyson et al, Gulf Refining Co. 12.
5-20-15 Doan Thigpen, Magnolia Petroleum Co. 15.
29-21-15 Spell, Magnolia Petroleum Co. 1.
24-21-15 Wiley Bradford, Magnolia Petroleum Co. 1.
15-17-14 Cunningham, Manie Drilling Co. 1.
1-21-15 J. S. Ardis, Ohio Oil Co. 1.
12-21-15 E. K. Smith, Ohio Oil Co. 18, 19.
10-20-16 Satterwhite, Oil City Oil Co. 2.
13-20-15 Youree-Randolph, D. C. Richardson 13.
27-21-16 Stiles, Standard Oil Co. 176.

23-21-15 C. M. L. Co., The Texas Co. 42, 47.
21-15-12 Ellerbe, The Texas Co. 1.
12-21-16 S. P. Harrell, The Texas company 52.
4-21-16 S. P. Harrell, The Texas company 57.
33-21-16 Levee Board, The Texas company 61.
14-21-15 Huckaby, Thoil Oil Co. 8.

Shut Down

16-20-16 Ferry Lake, Gulf Refining Co. 222.
8-19-16 Louisiana Live Stock & Planting Co., Haynes Brothers 1.
29-22-15 Caldwell, Henderson et al 1.
29-21-15 Hobbs, Page & Caldwell 1.
3-15-15 Duke Williams, Ridge Oil Corp. 1.
34-21-16 T. J. Hart, Standard Oil Co. 11.
15-20-16 F. J. Bayson, Texas Co. B-1.

Rigs

7-20-15 Davis & Butler, N. B. Bransford 1.
2-20-16 Dambley, H. P. Burford 1.
22-20-16 Ferry Lake, Gulf Refining Co. 231.
15-20-16 Ferry Lake, Gulf Refining Co. 232.
24-21-15 Dillon, Magnolia Petroleum Co. 16, 17.
14-21-15 Murray, McGoldrick et al 8.
23-22-15 L. B. Caddo, S. L. Ricketts 12.

Wells drilling 33
Wells shut down 7
Rigs 8

Monroe District—

11-21-7e Sullivan, Boisseau et al 1.
27-23-5e Crossett, Natural Gas Producing Co. 18.
35-20-4e Cole, Central Co. 1.
1-18-4e Edwards, J. M. Huber, 2.
17-18-4e Quachita, J. E. Gordan 1.
26-20-4e Kate Cole, Palmer Corp. 2.
24-19-4e Fee, Palmer Corp. 2.
24-20-4e Wilson, United Carbon Co. 1.
14-20-1e Reeves, Arkansas Fuel Oil Co. 1.
18-23-1e Frost-Johnson, Clark Creek Oil Co. 1.
16-20-3e Thompson, Louisiana Power Co. 1.

Shut Down

23-15-3e Cordell, Culver et al 1.
24-18-3e Goodwin, Dickson and Frue 1.
32-19-1e D'Arbone, Sam D. Hunter 1.
36-19-4e Fee, Ladell et al 33.

Rigs

1-19-4e Central, Palmer Corp. 1.
36-19-4e Banks, J. M. Huber 3.
20-19-4e McErwin, Manie Drilling Co. 1.
17-18-4e Nolan, Pioneer Oil & Gas Co. 1.

Wells drilling 11
Wells shut down 4
Rigs 4

DeSoto Parish—

9-12-11 Jenkins, Dixie Oil Co. 1.
27-12-11 Bond, Magnolia Petroleum Co. 1.
34-12-16 Mrs. Evelyn Cody, Ohio Oil Co. 1.
2-12-12 Wemple, The Texas company, A-10.
18-12-12 Heard, L. V. Ulrey 1.

Shut Down

29-15-14 Williamson, Carl K. Dresser 1.

Rigs

15-12-14 Louisiana Land & Development Co. 1.
20-12-14 Sutherlin, J. P. Evans, 1.
29-12-11 Matthews, A. H. Tarver, 4.
36-12-11 Chaffraix, J. C. Walton, 1.

Wells drilling 5
Wells shut down 1
Rigs 4

Webster Parish—

Wells Drilling

21-21-10 Robbins, Alabama Petroleum Co. B-3.
21-21-10 D. Coyle, Gulf Refining Co. 2.
22-21-10 R. R. Cox, Humble Oil & Refining Co. 1.
21-21-10 Crichton, Louisiana Oil & Refining Co. 4.
8-20- 9 Bible, Magnolia Petroleum Co. 1.
21-21-10 Tiner, Magnolia Petroleum Co. 1.
21-21-10 Turner, Magnolia Petroleum Co. 1.
21-21-10 Bodcau, Ohio Oil Co. 37.
23-21-10 W. Cox, Ohio Oil Co. 1.
23-21-10 Holloway, Ohio Oil Co. 3.
29-33-11 Oakley, Smitherman & McDonald, 1

Shut Down

13-21-10 Bodcau, Humble Oil & Refining Co. B-5.
15-20-10 Hortman, McDowell et al 1.
27-21-10 Josey & Massey, R. W. Norton 1.

Rigs

28-21-10 Nelson, Louisiana Oil & Refining Co. 3.
32-23- 9 J. S. Sexton, Magnolia Petroleum Co. 1.
22-21-10 C. V. Banks, Ohio Oil Co. 2.
15-21-10 Bodcau, Ohio Oil Co. 32.
26-21-10 Gray, Ohio Oil Co. 3.
23-21-10 Holloway, Ohio Oil Co. 2.
1-22-10 Munn, Southern C. O. P. Co., and W. R. Ramsey 1.
28-21-10 Greason, Tidal Oil Co. 2.
28-21-10 Gray, Woodley Petroleum Co. 4.

Wells drilling 11
Wells shut down 3
Rigs 9

LOUISIANA WILDCATS

Wells Drilling

6-12-4e Lively, Chas. Daniels 1.
6-11-4e Cruse, Crant & Ripes 1.
14-23-3 G. W. Taylor, Gilliland Oil Co. & W. R. Ramsey, D.-1.
32-23- 5 Hollayfield, Triangle Drilling Co. 1.
7-19- 5 Keen, Triangle Drilling Co. 1.
32- 7-1w Ball, Finn & Hurdley 1.
12-20-3w Davis, Buckley & Palmer 1.
27-18-1w Tremont, The Texas company 1.
24-12-11 Hollingsworth, Carnahan & Kyle 1.
9- 7-12 Bowman, L. M. Emlet 5.
14- 7-14 Bowman, L. M. Emlet 7.
13-11-1e Urania, Cherokee Petroleum Co. 1.
24-13-1e Louisiana Central, C. H. Wilson 1.

Shut Down

7- 9- 5 Cox, Triangle Drilling Co. 1.
20- 9- 1e Holmes, Dowling & McCurry, 1.
18-19-1e Swope, Dowling & McCurry 1.
13- 8-1w Ball & Cody, Finn et al 5.
29- 5-2e Barrow, Hincey & Macke 1.
3- 4-3e Lanier, Wheeler & Wilbanks 1.
8- 7-12 Bowman, L. M. Emlet 6.
6-10-2w Sullivan, Cedar Creek Petroleum Co. 1.
6-10-2w Eagles, J. H. Hall 1.

Rigs

30-11-4e Cruse, Standard Drilling Co. 1.
16- 9-1e Holmes, Bradley & Cozart 1.
12-11-2w Louisiana Central Co., Cherokee Petroleum Co. 1.
26-10-1e Harper, O. W. Clark, trustee 3.

Wells drilling 13
Wells shut down 9
Rigs 4

UNION COUNTY COMPLETIONS

ARKANSAS

17-18-15 Fitzgerald, C. H. Allison, A-1 dry
16-17-16 Andress, Atlantic Oil Pro. Co. 2 200
16-17-16 Andress, Atlantic Oil Pro. Co. 3 100
16-17-16 Andress, Atlantic Oil Pro. Co. 4 35
10-16-15 Bawton, Bailey & Trimble 3.. 50
12-16-16 Houston, Barbare et al 1 .... dry
4-17-16 Kilgoe, Bond & Evans 1 75
8-16-15 Murphy, Broderick & Calvert B-6 250
10-17-16 Dumas, Coats & Sowell 1 20
17-16-15 Cook, J. W. Clark 7..... abd
4-16-16 Saxon, Clark & Melat, A-1 .... dry
9-16-15 Palmer, J. W. Clark 5..... abd
1-16-16 Primm, Custer & Nash 1..... dry
23-17-16 Ennis, El Dorado Union Oil Co. 1 ..... dry
15-16-16 Murphy, Estes et al 2 120
7-16-16 Howard, Fergerson et al 2.... 25
9-17-16 Dumas, Foster et al 1..... 60
9-17-16 Slaughter, Foster et al 3..... 275
6-18-14 Lovett, Grimes & Jones 1 .... gas
7-16-16 Fagg, Gulf Refining Co. 2.... 6
5-16-15 Hardy-Murphy, Gulf Refining Co. 37 90
21-16-15 Hays, Hickman et al 4 ..... dry
10-15-22 Calloway, Humble Oil & Refining Co. 2 ..... dry
31-15-15 Laney, Humble Oil & Refining Co. 3 100
17-16-15 Murphy, E. M. Jones, 4 50
17-16-15 Murphy, E. M. Jones 9 200
7-16-15 Bradford, Keene & Woolf, 2 .. 180
7-16-15 Hodges, Louisiana Oil & Refg. Co. 4 ..... gas
16-17-16 Goodwin, Lion Oil & Refining Co. 1 50
16-17-16 Goodwin, Lion Oil & Refining Co. 2 125
16-17-16 Goodwin, Lion Oil & Refining Co. 4 136
17-16-15 Wilson, Lion Oil & Refining Co. 1 100
9-17-16 Dumas, Magnolia Petroleum Co. 1 230
9-17-16 Slaughter, Magnolia Petroleum Co. 1 625
9-17-16 Slaughter, Magnolia Petroleum Co. 2 600
9-17-16 Slaughter, Marine Oil Co. 2 .. 400
9-17-16 Slaughter, Marine Oil Co. 3 .. 150
9-17-16 Slaughter, Marine Oil Co. 4 ... 150
10-16-15 Lawton, Mazda Oil Corp. H-3.. 50
17-16-15 Murphy, Marr & Woods 3.... 25
35-17-16 Miller, Miller trustee 1..... 25
9-17-16 Slaughter, Miller & Cottingham 1 400
9-17-16 Slaughter, Miller & Cottingham 2 600
9-17-16 Slaughter, Miller & Cottingham 3 200
5-16-15 Flenniken, Moco Oil Corp..... 125
4-16-15 Hays, Murdock, et al 2..... dry
17-16-15 Vestal, Murdock et al 2..... 250
17-16-15 Vestal, Murdock et al 7..... 15
16-17-16 Andress, Natural Gas & Fuel Co. 1 400
16-17-16 Andress, Natural Gas & Fuel Co. 2 160
16-17-16 Andress, Natural Gas & Fuel Co. 3 125
16-17-16 Andress, Natural Gas & Fuel Co. 4 150
17-16-15 Harrell, Natural Gas & Fuel Co. A-5 ..... gas
8-16-15 Murphy, Natural Gas & Fuel Co. C-3 150
8-16-15 Flenniken, Natural Gas & Fuel Co. 2 ..... dry
10-17-16 Dumas, Oil Fields Corp. 1 30
9-17-16 Slaughter, Olvey & Jones 2 .. 125
9-17-16 Slaughter, Olvey & Jones 3 .. 535
9-17-16 Slaughter, Olvey & Jones 4 807
4-17-16 Porter, Owens et al 1 ..... dry
4-17-16 Slaughter, Owens et al 1 175
32-16-16 Parks, Owens et al 2 ..... dry
9-17-16 Dumas, Pure Oil Co. 1 65
9-17-16 Dumas, Pure Oil Co. 2 75
8-16-15 Bilyew, Pure Oil Co. 6 120
6-16-15 Friend, Pure Oil Co. 8 225
15-17-16 Moore, Reynolds & Marr 1..... 20
15-17-16 Dumas, J. D. Reynolds 2 20
15-17-16 Dumas, J. D. Reynolds 3 15
10-16-15 Lawton, Sam Richardson 5 .. 80
16-17-16 Goodwin, Rovenger Oil Corp. 3 50
16-17-16 Goodwin, Rovenger Oil Corp. 4 30
9-17-16 Dumas, Rovenger Oil Corp. 5.. 40
9-17-16 Dumas, Simms Oil Co. 15
9-17-16 Dumas, Simms Oil Co. A-5 60
9-17-16 Dumas, Simms Oil Co. A-3 65
9-17-16 Dumas, Simms Oil Co. A-4 35
9-16-15 Murphy, Stewart et al 1 ..... gas
9-16-15 Murphy, Stewart et al 4 ..... abd
6-16-15 Hatfield, Sun Oil Co. 7 30
1-16-16 McClannahan, Sun Oil Co. 3 .. dry
9-16-15 Flenniken, Sunny Jim Oil Co. 7 200
31-17-15 Burns, Standard Oil Co. 4.... 125
12-16-16 McClannahan, The Texas company 2 ..... dry
12-16-16 Houston, Thurman et al 2 80
8-16-15 Bilyew, Unity Petroleum Co. A-8 150
8-16-15 Bilyew, Unity Petroleum Co. A-9 225
27-17-16 Cruse, Wingfield et al 1 ..... dry
9-17-16 Dumas, Wingfield et al A-1 .. 200
9-17-16 Dumas, Wingfield et al A-2 .. 300
9-17-16 Dumas, Wingfield et al A-3 .. 800
9-17-16 Dumas, Wingfield et al A-6 .. 225
9-17-16 Slaughter, Wingfield et al A-1 125
9-17-16 Slaughter, Wingfield et al 2 ..1000
9-17-16 Slaughter, Wingfield et al 3.. 100
9-17-16 Slaughter, Wingfield et al 5 .. 175
9-17-16 Slaughter, Wingfield et al 6.. 150
9-17-16 Dumas, Woodley Petroleum Co. 110

Wells completed 98
Production 13,659
Gas wells 4
Gas production 90,000,000
Dry 17

OUACHITA COUNTY

27-15-19 Morgan, Equity Oil & Drilling Co. 1 10
21-15-15 Laney, Calcord et al 5 50
27-15-19 Wallace, J. E. Crosby 1..... 18
32-11-17 Moline, H. M. Harrell 1..... dry
6-16-15 Flannigan, Humble Oil & Refining Co. 9 50
26-15-16 Arnold Humble Oil & Refining Co. B-10 ..... abd
33-15-16 Johnette, Interocean Oil Co. 2 15
22-15-19 Green, Louisiana Oil & Refining Co. 1 100
36-15-17 Lagrone, A. Meek, 3 50
35-15-17 Clawson, Magnolia Petroleum Co. 3 ..... abd
30-15-16 Fee, Magnolia Petroleum Co. 3 35
5-16-15 Goodwin, Magnolia Petroleum Co. 12 80
5-16-15 Umsted, Marine Oil Co. 10.... 110
29-15-15 Goodwin, Ohio Oil Co. 7..... 90
27-15-16 Hardin, Penguin Oil Co. 4 ... abd
27-15-16 Hardin, Penguin Oil Co. 8 .... dry
28-15-15 Brister, Pure Oil Co. 3 30
28-15-15 Murphy, Simms, Oil Co. 5.... 150
32-15-15 Reynolds, Simms Oil Co. 9 60
6-16-15 Flannigan, Sinclair Oil & Gas Co. 9 150
4-16-15 Murphy, Southern C. O. P. Co. 4 250
34-15-15 Joyce, Southern C. O. P. Co. 6 gas
32-15-15 Umsted, Standard Oil Co. 23 .. gas
36-15-16 Laney, Sunny Jim Oil Co. 3 ... 20
22-15-19 Davis, J. D. Reynolds 1..... dry
22-15-19 Thompson, J. D. Reynolds 1.. 300
34-15-15 Snyder, Roxana Petroleum Co. 5 90
3-16-15 Johnson, The Texas company 11 20
33-15-15 Umsted, Unity Petroleum Co. 9 150

Wells completed 26
Production 1828
Gas wells 2

NEVADA COUNTY

2-14-21 Ellis, Bemis et al 3 350
2-14-21 Ellis, Bemis et al 4 150
2-14-21 Graves, Grayson et al 1..... dry
2-14-21 Ellis, Humble Oil & Refining Co. 2 150
2-14-21 Graves, Humble Oil & Refining Co. 2 150
2-14-21 Graves, Humble Oil & Refining Co. 3 450
10-14-21 Waters, Keystone Oil Co. 7.. 75
10-14-21 Waters, Keystone Oil Co. 8 .. 150
3-15-21 Johnson, Magnolia Petroleum Co. 1 ..... dry
2-14-21 Waters, Smitherman & McDonald 3 100
22-13-21 Tidwell, Straughn & Greason 1 dry

Wells completed 11
Production 1575
Dry 3

COLUMBIA COUNTY

36-15-20 Rhinehart, Magnolia Petroleum Co. 8 10

Arkansas Wildcats

18-19-14 Red River, Arkansas Fuel Oil Co. 1 20
19-16-23 Bodcau fee, Humble Oil & Refining Co. 3 ..... dry
27-12-27 Hempsted, Grassy Lake Oil Association 1 ..... dry
1-17s-16w Pine Prairie, Pine Prairie Oil Co. 2 ..... abd
22-14-26 Munn, Buzzard Bluff Oil Co. 1 dry
36-15-27 Wiseman, J. L. Bragden 1.... dry

Wells completed 5
Production 20
Dry 4

UNION COUNTY ARKANSAS DRILLING OPERATIONS

Wells Drilling

16-17-16 Andrews, Atlantic Oil Producing Co. B-1, B-2.
16-17-16 Graham, Atlantic Oil Producing Co. 2.
9-17-16 Slaughter, Atlantic Oil Producing Co. 5, 6.
8-16-15 Murphy, Broderick & Calvert B-7.
8-16-16 Fee, G. J. Childs 2.
31-17-15 Burns, Constant Refining Co. 6 .
7-16-15 Tatum, Sam Cook 7.
15-16-15 Murphy, Eason et al 7, 3.
9-16-15 Palmer, Eason et al 3.
10-16-15 Lawton, Federal Petroleum Co. B-6.
15-16-15 Wells, Federal Petroleum Co. B-2.
15-17-16 Mooty, Foster P. McWilliams 2.
1-16-17 Hodges, W. H. Gilliland 2.
18-16-15 Murphy, George P. Jones 5.
2-16-15 Alphin, Gulf Refining Co. 17.
14-16-15 Clawson, Gulf Refining Co. 2.
1-16-16 McMullen, Gulf Refining Co. 3.
34-16-16 Mathews, W. H. Harper, trustee 1.
3-17-16 Slaughter, Hickman et al 1.
36-17-16 Springer, Howell P. Knowles 2.
9-16-15 Flenniken, Humble Oil & Refining Co. B-3.
16-17-16 Goodwin, Humble Oil & Refining Co. 1.
7-16-15 Lawton, Humble Oil & Refining Co. B-2.
9-17-16 Slaughter, Humble Oil & Refining Co. 1, 2.
33-16-16 Murphy, H. L. Hunt, 1.
28-16-16 Swilley, H. L. Hunt, 1.
21-17-16 Goodwin, Imperial Oil & Gas Producing Co. 1.
6-16-15 McClanahan, Imperial Oil & Gas Producing Co. 12.
17-16-15 Murphy, E. M. Jones 2.
34-19-11 Townes, Kampeter et al, 34.
15-17-16 Harrell, Keisker et al 1.
8-16-15 Murphy, W. R. Keever 6.
17-16-15 Sanford, W. R. Keever 5.
20-17-16 Mitchell, J. P. Kelly 1.
3-16-15 Williams, Kennebrew et al 7.
10-16-15 Flenniken, Lion Oil & Refining Co. 8.
16-17-16 Goodwin, Lion Oil Refining Co. 3.
17-17-16 White, Long et al 1.
17-16-15 LeCroy, Magnolia Petroleum Co. 3.
7-16-15 Tatum, Magnolia Petroleum Co. 3, 4.
9-17-16 Dumas, Magnolia Petroleum Co. 2, 3.
8-16-16 Hessler, Magnolia Petroleum Co. 3.
9-17-16 Slaughter, Magnolia Petroleum Co. 3.
16-17-16 Graham, Marine Oil Co. 2.
9-17-16 Slaughter, Marine Oil Co. 5.
10-16-15 Lawton, Masda Oil Corp. R-6.
9-17-16 Slaughter, Miller P. Cottingham, 4
5-16-15 Flenniken, Noco Oil Corp. 9.
17-16-15 Vestal, Murdock et al 1, 7.
2-19-18 Edwards, Moorefield et al 1.
21-17-16 H. G. Murphy, Ohio Oil Co. 1.
4-17-16 Slaughter, Owens et al 2, 3.
17-16-15 Cook, Peer Oil Co. 1.
9-16-15 Palmer, Peer Oil Co. 5.
6-16-15 Friend, Pure Oil Co. 9.
4-17-16 Slaughter, Pure Oil Co. 1.
10-17-16 Dumas, Reliance Drilling Co. 1.
15-17-16 Dumas, J. D. Reynolds 4.
16-17-16 Graham, Rovenger 1.
4-17-16 Flournoy, Roxana Petroleum Co. 1, 2.
4-16-16 Fee, C. L. Saxon 2.
16-16-15 Cook, Simms Oil Co. 7.
9-17-16 Dumas, Simms Oil Co. 3.
4-17-16 Kilgoe, Simms Oil Co. 1.
16-17-16 Moore, Simms Oil Co. 1, 2, 3, 4.
6-16-15 Flannigan, Sinclair Oil & Gas Co. 8.
3-17-16 Slaughter, Southern C. O. P. Co. 1.
6-16-15 McClanahan, Standard Oil Co. 12.
10-17-16 Dumas, Stock et al 1.
6-16-15 Hatfield, Sun Co. 8.
10-16-15 Lawton, Unity Petroleum Co. 2.
16-16-14 Goodwin, Williams et al 2.
9-17-16 Dumas, Wingfield et al A-4.
9-17-16 Slaughter, Wingfield et al 4, 7, 8, 10, A-2.
8-16-15 Bilyew, Woodley Petroleum Co. 4.

Shut Down

16-17-16 Graham, Atlantic Oil Producing Co. 2.
8-18-12 Garner, Bonderant et al 1.
8-16-15 Murphy, Broderick & Calvert, B-5.
18-16-15 Murphy, George P. Jones 5.
7-16-15 Murphy, Lion Oil & Refining Co. A-9.
7-16-15 Hatfield, Magnolia Petroleum Co. 6.
11-17-16 Haney, McGaha et al 1.
5-16-15 Flenniken, Moco Oil Corp. 5.
17-16-15 Harrell, Natural Gas & Fuel Co. A-4.
17-16-15 Smith, Leo P. Pukrul 2.
11-17-16 Burns, Thurman et al 1.

Rigs

16-17-16 Goodwin, Atlantic Oil Producing Co. 1.
16-17-16 Graham, Atlantic Oil Producing Co. 3.
4-17-16 Kilgore, Bond & Evans 3.
6-18-15 Robinson, Clark & Greer 3.
10-17-16 Dumas, Coats & Sowell 2.
34-17-15 Telford, Crestline Oil Co. 1.
3-17-16 Slaughter, Hickman et al 1.
16-17-16 Goodwin, Humble Oil & Refining Co. 6.
4-17-16 Murphy, H. O., H. L. Hunt 1.
26-17-16 Goodwin, Imperial Oil & Gas Co. 1.
10-16-15 Lawton, E. M. Jones A-2.
17-16-15 Murphy, E. M. Jones 6.
15-17-16 Harrell, Keisker et al 2.
10-16-15 Flenniken, Lion Oil & Refining Co. 8.
7-16-15 Murphy, Lion Oil & Refining Co. A-6.
9-17-16 Slaughter, Magnolia Petroleum Co. 4,5.
5-16-15 Flenniken, Moco Oil Corp. 7, 9, 11.
4-17-16 Slaughter, Owens et al 4.
9-17-16 Dumas, Rovenger Oil Corp. 3.
7-16-15 Murphy, Roxana Petroleum Co. 4.
16-17-16 Moore, Simms Oil Co. 4.
9-17-16 Slaughter, Wingfield et al 9.
9-17-16 Slaughter, Wingfield et al A-3, A-4.
9-17-16 Dumas, Woodley, T. J. 3.

Wells drilling 91
Wells shut down 11
Rigs 23

Ouachita County—

Wells Drilling

29-15-16 Kyle, Gilliland Oil Co. 8.
17-12-17 Moline Timber Co., H. M. Harrell, 2
26-15-16 Arnold, Humble Oil & Refining Co. B-11.
6-16-15 McClanahan, Imperial Oil & Gas Co. 7-A.
36-15-17 LaGrone, A. Meek, trustee 4.
28-15-15 Brister, Pure Oil Co. 12.
13-15-17 Smith, J. D. Reynolds 1.
32-15-15 Bennett, Roxana Petroleum Co. A-4
28-15-15 Hildebrant, Simms Oil Co. 10.
29-15-15 Murphy, T. Simms Oil Co. 5.
4-16-15 Umsted, Southern C. O. P. Co. 4-A.
29-15-15 Murphy, Standard Oil Co. 8-B.
27-15-16 Hicks, Sunny Jim Oil Co. 3.
4-16-15 Umsted, Woodley Petroleum Co. 4-A.
21-15-19 Cosden, Gossett et al 1.
22-15-19 Thompson, Gossett et al 1-A.
31-15-19 Hall, El Dorado Union Oil Co. 1.
31-15-19 Watson, Magnolia Petroleum Co. 1.

Shut Down

30-15-16 Murphy, Magnolia Petroleum Co. 2.
4-13-17 Higgins, Nubert et al 1.
36-15-17 Shirey, Smith Drilling Co. 3.
33-15-15 Umsted, Standard Oil Co. 12.
32-15-15 Umsted, Standard Oil Co. 5-B.
22-14-17 Yarborough, Vandiver et al 1.
22-15-19 Davis, Buffalo Oil Co. 2.
26-15-19 Davis, Gossett et al 1.

Rigs

9-14-17 Tate, Phillips Petroleum Co. 1.
22-15-19 Sawyer, J. D. Reynolds 1.

Wells drilling 18
Wells shut down 8
Rigs 2

Nevada County—

Wells Drilling

1-14-21 Graves, Humble Oil & Refining Co. 4-A, 1-B.
11-14-21 Waters, Keystone Oil Co. 9.
2-14-21 C. W. Waters, Smitherman & McDonald 4, 5.
1-14-21 Haynie, Steele et al 1.

Shut Down

10-14-21 Womack, Zing et al 4.

Rigs

10-14-21 Womack, Autrey Oil Co. 3.
2-14-21 J. P. Waters, Humble Oil & Refining Co. 1.

Wells drilling 6
Wells shut down 1
Rigs 2

Columbia County—

Wells Drilling

36-15-20 Jones, J. E. Crosby 1.
18-19-19 Wingfield, Haynesville Trust Co. 1.
13-15-20 Brown, Hude & Aarnes 2.
23-18-23 Robinson, Pluto Oil Co. 2.

Shut Down

29-19-20 Doss, Kentucky-Arkansas Petroleum Co. 1.
20-16-18 Watts, Miller, et al 1.
35-18-19 Duffer, Smith and Compton 1.
4-26-21 Bodcau, Wingfield & Mitchell 1.

Rigs

36-15-20 Jones, Gorden et al 1.
15-17-22 Gnatt, F. R. Maier et al 1.
20-18-22 Dickens, Pluto Oil Co. 1.

Wells drilling 4
Wells shut down 4
Rigs 3

ARKANSAS WILDCATS

Wells Drilling

7-17-15 Fee, Pine Prairie Oil Co. 1.

29-15-14 Callon Lumber Co., Magnolia Petroleum Co. 1.
1-16-14 Callon Lumber Co., Southern C. O. P. Co. 1.
12- 9-20 Arnold, Virgil Heath trustee 1.
29- 9-10 Moore, Haley et al 1.
7- 3-10 Hinsley, Decem Oil Co. 1.
2-13-31 Tilen, Grote et al 1.
10-11-31 Hawkins, Mellick Oil Co. 1.
25-15-26 Dale, Lenze et al 1.

Shut Down

20-15- 7 Bledsoe, Rhodes & Kirker 1.
21-16-12 Brown, Easley et al 1.
24-15-15 Freeman Lumber Co., Genther et al 1.
26-16-13 Freeman Lumber Co., Harris & Buckley 1.
35-10-20 Brown, Whelen Oil Co. 1.
29-10-16 Owens, McNeil et al 1.
35-13- 5 Olga, McClintock & Goodka 1.
23-10-25 Garland, Burton et al 1.
9-11-23 Sutton, Zing et al 1.
7-19-24 Red River Land Co., Arkansas Fuel Oil Co. 3.

Rigs

33-16- 7 Fee, Brown et al 1.

Wells drilling	9
Wells shut down	10
Rigs	1

ROCKY MOUNTAIN FIELDS

WYOMING

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Big Muddy	0	0	0	0	0	1	1
Salt Creek	24	11,529	0	0	18	50	68
Lance Creek	1	450	0	0	0	1	1
Big Horn Basin	3	50	1	0	3	57	60
Lost Soldier, Carbon Co.	7	200	3	3	2	34	36
Rock River district	0	0	0	0	0	16	16
Fremont Co.	1	0	1	0	1	35	36
Osage	0	0	0	0	5	11	16
Natrona Co.	1	0	0	1	0	7	7
Lincoln and Uintah Cos.	0	0	0	0	2	27	29
Baxter Basin	0	0	0	0	0	7	7
Miscellaneous	0	0	0	0	1	32	33
Total Apr.	37	12,229	5	4	32	278	310
Total Mar.	43	17,008	3	1	35	268	303
Difference	6	4,779	2	3	3	10	7

MONTANA

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Sunburst	28	4,529	5	3	8	47	55
Cat Creek and Miscellaneous	2	75	1	0	7	82	89
Total Apr.	30	4,604	6	3	15	129	144
Total Mar.	13	4,077	5	2	17	140	157
Difference	17	527	1	1	2	11	13

COLORADO

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total April	10	0	10	0	19	103	122
Total March	5	430	2	0	18	107	125
Difference	5	430	8	0	1	4	3

UTAH

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total April	0	0	0	0	3	31	34
Total March	0	0	0	0	2	32	34
Difference	0	0	0	0	1	1	0

NEW MEXICO

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total April	27	1,395	9	0	15	137	152
Total March	22	910	8	0	11	138	149
Difference	5	485	1	0	4	1	3

BIG MUDDY

Shut Down

2-33-76 Fenix, Continental Oil 4.
Rigs, 0; wells drilling, 1; total, 1.

SALT CREEK

Rigs

13-39-79 SE, Blackstone Salt Creek 4-F.
34-39-79 SW, Mammoth Oil Co. 302.
34-40-78 NW, Mammoth Oil 305.
28-39-78 NW, Mammoth Oil 405.
28-39-79 NE, Mammoth Oil 406.
13-38-78 SW, Wyoming Teapot Oil Co.
16-39-78 NE, Nicholaysen et al.
19-40-79 NE, Norris Oil 13-A.
10-38-78 NW, Mammoth Oil 202.
3-39-78 NE, Sinclair Wyoming 11.
6-39-78 NE, Mt. & Gulf 29-A.
31-39-78 SE, Teapot Development Co.
35-40-79 SE, Midwest Oil Co. 31-A.
1-39-79 SE, Continental Prod. Co. 11-A.
6-39-78 SE, Mt. & Gulf 8-A.
5-39-78 NW, Carter Oil 12-D.
17-39-78 SE, Argo Oil 2-M.
8-39-78 NE, Western States O. & L. 21-A.

Wells Drilling

5-39-78 NW, Western States O. & G. 29-A.
23-40-79 NE, Wyoming Associated 33-L.
29-40-78 NW, Texas Prod. Co. 17-A.
19-40-78 NW, Utah Oil Refg. Co. 12-A.
32-40-78 SW, Continental Oil Co. 13-A.
34-40-79 NE, Midwest Oil Co. 13-L.
19-40-78 SE, Texas Prod. Co. 25-AXS.
33-40-79 NW, Wyoming Oil Fields 36-L.
23-40-79 SE, Wyoming Oil Fields 6-L.
23-40-79 SW, Wyoming Asso. 19-A.
26-40-79 SE, Wyoming Asso. 22-L.
26-40-79 NE, Wyoming Asso. 31-L.
35-40-79 NW, Wyoming Asso. 18-L.
14-40-79 SW, Wyoming Asso. 15-A.
2-39-79 NW, Salt Creek Cons. 21-L.
23-40-79 NE, Wyoming Asso. 33-L.
23-40-79 SW, Wyoming Asso. 19-L.
26-40-79 SE, Midwest Oil Co. 16-L.
26-40-79 SE, Midwest Oil Co. 15-L.
35-40-79 NE, Midwest Oil Co. 23-L.
26-40-79 SW, Midwest Oil Co. 6-L.
14-40-79 SE, Midwest Oil Co. 15-A.
25-40-79 NE, Midwest-Wyo. Asso. 3-A.
13-40-79 SW, Midwest-Wyo. Asso. 21-A.
13-40-79 SW, Midwest-Wyo. Asso. 15-A.
12-40-79 SW, Midwest-Wyo. Asso. 16-A.
32-40-78 SE, Texas Prod. Co. 19-A.
32-40-78 SE, Texas Prod. Co. 29-A.
28-40-79 SW, Jupiter Oil Co. 34-S, 35-S.
11-39-79 Middy, E. T. Williams 2.

Shut Down

10-40-79 SE, Empire States Oil 25-A.
28-39-78 NE, Mammoth Oil 101.
29-39-78 NE, Mammoth Oil 108.
28-39-78 NE, Mammoth Oil 304.
28-39-78 SW, Mammoth Oil 302.
28-39-78 NW, Mammoth Oil 205.
4-38-78 NW, Mammoth Oil 101.
23-39-78 NE, Evans Oil Co.
29-39-78 NE, Omaha Lusk Oil Synd.
2-38-79 NE, Teapot Dome Synd. 34-A.
6-39-78 NE, Mt. & Gulf 34-A.
34-39-78 SW, Mutual Oil 35-A.
24-39-78 NW, Mutual Oil 22-AS.
19-39-78 NW, Kinney Coastal 19-A.
7-39-78 SE, Continental Prod. 1-DD.
15-40-79 SE, Prairie O. & G. 10.
32-40-78 SW, Jupiter Oil Co. 27-A.
34-40-79 SW, Continental Prod. Co. 36-A.
2-39-79 NW, Midwest Oil Co. 15-L.
Rigs, 18; wells drilling, 50; total, 68.

LANCE CREEK

Shut Down

18-35-65 NE, Union Oil Co.
Rigs, 0; wells drilling, 1; total, 1.

BIG HORN BASIN

Rigs

23-44-95 Flavin, Ohio Oil Co. 1.
5-47-90 Hetzler, Ohio Oil Co. 1.
32-56-97 Howell, Occidental Oil & Gas.

Wells Drilling

11-48-90 Tensleep, Ohio Oil 3.
7-54-93 Garry Oil & Dev. Co.
15-49-91 Shaffer & Tilley.
18-46-92 Washakie, Ohio Oil Co. 4.
18-44-93 West Zimmerman Mutte Oil.
8-18-100 Union Oil Co.
20-53-101 NE, Washington Oil & Gas.
1-44-102 T. C. Clark et al.
21-53-101 Guiterman et al.
14-48-102 Big Horn Basin Dev. Co.
20-53-101 Taylor Brothers.
7-46-98 Washakie, Ohio Oil 2.
35-56-97 Cross Gas Co., Ohio Oil 2.
5-51-67 SW, C. M. Carroll et al.
9-54-94 SW, Wisconsin-Hines Co.
15-44-95 SW, F. L. Pierce.
19-54-93 SW, Crystal Creek Synd.
32-47-100 NW, Prairie Oil & Gas Co.
19-46-98 State, Ohio Oil 41, 42.
3-56-98 Elk Butte Oil & Gas.
34-43-91 SE, Union Oil Co. 1-A.
28-43-91 NW, Union Oil Co. 1-A.
10-56-95 SE, Allen Oil Co.
31-43-93 Utah Oil & Refg. Co. 3.
33-43-94 SW, Wyoming-Montana Oil Co.
17-46-98 Washakie, Ohio Oil Co. 1.
10-55-97 Standard of California 1.

Shut Down

5-44-93 Royal Oil & Refg. Co.
29-56-97 NE, Utah Southern Oil Co.
35-57-91 NE, American Indian Oil Co.
4-51-100 Florence Oil Co.
3-55-97 Griffin, Allen Oil Co.
2-47-100 NE, Midwest Refg. Co.
34-56-97 Linton, Allen Oil Co.
31-45-99 NW, Kasoming Oil Co.
22-46-91 SW, Olympus Oil Co.
17-49-91 Frontier Oil & Gas.
27-46-98 Rankin, Dickie Oil Co.
8-46-98 Grass Creek Prod.
3-56-98 Beck Pet. Co.
16-47-100 Big Horn Dev. Co.
19-51-92 Bruce Holding Co.
34-43-92 C. D. Markham et al.
10-54-95 SE, Westland Oil Co.
35-55-95 Westland Oil Co.
20-54-100 NE, Pittsburgh Southwestern.
5-43-91 SW, Producers & Refiners.
11-49-102 T. A. Stancliff.
11-49-102 Omar Oil & Gas.
36-58-100 Local Oil Co.
10-56-98 SE, Victor Cotner.
18-46-91 Tumador Oil Co.
5-54-95 SW, Royal Oil Co.
28-44-95 NE, F. A. McPherson.
2-44-96 F. A. McPherson.
Rigs, 3; wells drilling, 57; total, 60.

LOST SOLDIER AND CARBON COUNTIES

Rigs

24-21-88 E. R. Goode.
12-19-87 Marland Oil 1.

Wells Drilling

14-20-88 SE, Lake Valley Oil Co.
16-26-86 General Pet. Corp.
1-26-90 Producers & Refiners 6.
25-26-87 Producers & Refiners 17.
14-20-88 Lake Valley Oil Co.
2-39-89 Prairie Oil & Gas 2.
6-23-88 Prairie Oil & Gas 2.
14-20-88 Lake Valley Oil Co.
34-26-88 Prairie Oil & Gas 1-AX.
2-23-89 Prairie Oil & Gas 2.
6-23-88 Prairie Oil & Gas 2.
3-26-90 SE, Prairie Oil & Gas 70-A.
11-26-90 Prairie Oil & Gas 67-A.
11-26-90 Prairie Oil & Gas 34-A.
28-26-88 Prairie Oil & Gas 1-B.
11-26-88 Prairie Oil & Gas Co. 71-A.
11-26-90 Wyo-III, Prod. & Refs. 5.
35-26-88 Prod. & Refs. 3.
20-21-80 Prod. & Refs. 14.

Shut Down

3-26-90 Sand Hill Oil 5.
28-26-88 Govt. land, Columbia Pet. Co.
4-26-90 SE, Sand Hills Oil 4.
23-26-87 SE, Marvin Oil Co.
28-26-88 Govt. land, Columbia Pet. Co.
9-26-90 SE, Major Oil Co.
26-25-89 NW, E. R. Goode.
3-26-86 NE, General Pet. Co.
94-27-90 SW, Annabelle Oil Co.
10-26-90 Prairie Oil & Gas 65.
28-26-86 Portland Wyoming 1 and 2.
21-26-86 Portland Wyoming 3.
9-21-84 St. Mary's, Prod. & Refs. 1.
Rigs, 2; wells drilling, 34; total, 36.

ROCK RIVER

Wells Drilling

1-18-78 Dutton Creek, Midwest Refg. Co.
34-20-78 SW, M. L. Lundy.
8-17-77 SE, Texas Prod. Co.
13-17-77 Texas Prod Co.
25-21-79 SE, Southwestern Pet. Co.
34-23-79 Central Pipe Line Co.

Shut Down

10-18-77 Carbon County Oil Co.
12-20-77 McLaughlin et al.
26-21-78 SE, Southwestern Pet. Co.
14-66-77 SE, Rex Dome Oil Co.
36-21-79 NW, Southwestern Pet. Co.
12-16-74 SW, G. A. Briggs.
23-21-79 SE, Southwestern Pet. Co.
34-23-79 NE, Kanawha Oil & Gas Co.
Rigs, 0; wells drilling, 16; total, 16.

FREMONT COUNTY

Rigs

Wells Drilling

24-32-95 Seal Oil Association.
9-31-98 Martin F. Fold et al.
15-34-90 Ward Oil Co.
21- 1- 1 McDonald et al.
14-32-80 Meyers Pet. Co.
7-27-95 Van Wyo. Prairie Oil & Gas 1.
13-28-93 Spencer et al.
10-28-92 SE, Union Oil Co.
18-28-92 SE, Producers & Refiners.
15-32-95 SE, Texas Prod. 1.
27- 6- 3 SW, Kinney Coastal Oil Co.
21- 1- 1 Wyoming Syndicate.
14-32-95 NW, Riverton Pet. Co. 1.
13-28-93 Producers & Refgs. 1 and 2.
15- 5- 1 Carter, Union Oil Co.
10-32-95 Producers & Refs. 5.

Shut Down

36-37-94 Wyoming Syndicate.
6- 6- 2 SW, Union of California.
10-36-94 NW, Myrin Oil Co.
18-26-95 Sage Creek Pet. Co. 3.
29-27-95 Fremont Pet. Co.
32- 6- 2 Miles City Oil Co.
3- 1- 2 NE, Teton Pet. Co.
4-31-98 Derby Dome Wyoming.
9-32-95 NE, Producers & Refiners 2.
4-31-98 Burnside Oil Co.
23-32-95 Producers & Refiners.
25-27-93 American Workers Oil (Zola).
15-32-95 NE, Producers & Refiners 3.
15- 5- 2 Derby Dome Wyoming.
15- 6- 2 SW, Union Oil Co. 11.
15- 6- 2 SE, Union Oil Co. 12.
17-27-93 Brimmer, Prairie Oil & Gas 2.
19-27-95 Brimmer, Prairie Oil & Gas 1.
Rigs, 1; wells drilling, 35; total, 36.

OSAGE

Rigs

31-47-62 L. B. Hanson.
31-47-63 West Royalty.
Fawcett Ranch, Manlove et al.
31-46-63 Clark et al.
17-46-63 LaFleiche.

Wells Drilling

17-47-63 Wyoming Oil Co.
18-46-64 Fred Gravestead.
50-46-63 Fletcher Brothers.
31-46-63 Tom Don Oil Co.
17-46-63 La Fleiche Oil Co.
9-46-63 John O'Brien.
36-46-63 John O'Brien.

Shut Down

1-45-61 Lenhart & Briggs.
11-45-65 Frederick Oil & Gas.
6-46-63 Osage Trust Co.
8-46-63 Griffith Oil Co.
Rigs, 5; wells drilling, 11; total, 16.

NATRONA COUNTY

Wells Drilling

11-33-79 C. B. Mathewson.
15-34-87 NE, Continental Oil Co.
32-38-83 Wilson Dome, Marland Oil Co.

Shut Down

23-34-82 Bradford Wyoming Oil.
15-32-82 Bessimer Bend Dev. Co.
5-39-80 NW, Vernon Oil Co.
10-35-85 New York Oil Co. 2.
Rigs, 0; wells drilling, 7; total, 7.

LINCOLN AND UINTAH COUNTIES

Rigs

31-28-113 Tip Top Oil Co.
12-39-113 Cretaceous Oil Co.

Wells Drilling

Near Afton Great Western Oil Co.
23-31-113 Three States Oil.
3-26-113 Superior Oil Co.
15-21-117 Pacific Properties Co.
6-15-118 Vulcan Oil Co.
7-28-114 Charles Lackey et al.
34-27-113 Wyotah Oil Co.
23-27-113 Fawcett interests.
6-15-118 Olson Brothers.
Section 26 La Barge, Wooten interests.
Section 22 La Barge, Portland Oil Co. 1.
8-26-113 SE, Reece Oil Co. 1.
27-27-113 NW, Reece Oil Co. 1.
9-26-113 Transcontinental Oil Co.
26-27-113 Myrta Bonnett 1-X.
26-27-113 W. F. Atkins.
9-26-113 Uintah-Transcon Oil Co.

Shut Down

17-27-112 Western Slope Oil Co.
32-19-110 Granger Oil & Gas.
22-26-113 NW Big Piney Oil Co.
3-26-113 SW Fawcett & McPherson.
4-26-113 SE Uintah Oil Co. 1.
3-26-113 NE Wyoming Reserve Oil Co.
35-27-113 SE Assl. Prod. Synd. 2.
27-27-113 NW Beneficial Oil Co. 5.
34-27-113 SW Beneficial Oil Co. 6.
32-19-116 Conger et al.
Rigs, 2; wells drilling, 27; total, 29.

BAXTER BASIN

Shut Down

26-17-104 Associated Oil Co. 3.
23-17-114 SE Associated Oil Co.
24-17-104 SEMontical Oil Co.
8-16-104 SE Montical Oil Co.
27-17-104 SE Montical Oil Co.
30-18-104 Midwest Ref. Co. 6-AX.
26-17-104 SE Associated Oil Co.
Rigs, 0; wells drilling, 7; total, 7.

MISCELLANEOUS

Rig

Baggs Dome M. M. Armstrong.

Wells Drilling

12-26-27 Platte River Drilling Co.
8-44-60 Briggs & Sartain.
5-51-67 C. M. Carroll et al.
28-31-68 John Ackard et al.
24-26-82 NW Foreman et al.
28-42-78 Seattle Synd.
Guernsey District, Illinois Synd.
28-42-79 Montana Giant.
Buffalo District, Kinney Coastal O.
15-33-68 SW Schuyler et al.
1-32-68 A. E. Maught et al.
32-62-67 SW, Western Consolidated.
4-32-82 SE, Carl Sackett et al.
23-45-62 SE Olson-Spaulding Co.
7-48-82 Fairway Oil Co.

Shut Down

31-50-69 Roset Oil Co.
20-29-68 Nebraska Oil Co.
18-39-68 Glenco Oil & Gas.
6-28-62 Jay, Em., Foreman et al.
1-44-61 SW Osage Trust Co. 2.
17-48-82 Hess, Carter Oil Co. 2.
9-41-80 Newcomb et al.
31-37-67 NW Atlas Oil Co.
11-45-65 Reserve Oil & Gas Co.
28-47-65 NE Goose Syndicate.
35-48-64 Lilly, Pump Creek Oil & Gas 1.
17-46-82 R. C. Tarrant et al.
20-33-74 Horseshoe Syndicate.
13-25-66 A. E. Jocobs.
1-44-61 NE Gose Syndicate.
2-57-66 Fletcher et al 1.
1-32-65 Manville Oil & Gas Co.
Rig, 1; wells drilling, 32; total, 33.

MONTANA

CAT CREEK

Rig

12-15-28 NE Schaffer Oil Co.

Wells Drilling

12-15-28 NE Schaffer Oil Co.

Wells Drilling

11-15-29 Cooke-Coolidge-Ida 1.
12-15-30 NE Standard of Calif. 7.
21-15-30 Masser, Kessling Oil Co.
23-14-28 Winnet, Pacific Oil Co.
1-15-29 Custer Oil Co.
9-15-29 NE, Frant Oil Co.
13-15-29 Green-Frants Oil Corp. 10.
14-15-29 Clayton, Frants Oil Corp. 15.
36-16-28 NE, Hardrock Oil Co.
5-15-29 Midwest Ref. Co.
7-15-29 NW, Hogan et al 2.
11-15-20 Fifty-Six Pet. Co. 14.

Shut Down

10-15-29 Fifty-Six Pet. Co.
15-15-30 Swartz et al.
28-16-28 Republic Peerless 1.
9-15-27 Peerless Oil Co.
Rig, 1; wells drilling, 16; total, 17.

KEVIN-SUNBURST

Rigs

11-25-2 Stockmans Natl. Bank.
29-35-1 Benton, Arronow Oil Co.
4-32-4 Swears, Beardsley 1.
20-34-2 McBride, Canadian American Oil.
25-36-2 Troy Island Oil Co.
17-31-1 Potlatch Oil Co. 2.
30-35-1 Standard, Wallace Oil Co. 2.
20-35-1 Steel, Big West Oil Co.

Wells Drilling

35-35-2 Able, Ferdig Hughes et al 2.
5-35-2 F. M. Bell.
9-32-2 Suhr, Sunburst Prod. Co.
33-34-2 NE, Frazier Oil Co. 2.
8-34-2 Pittsburgh Montana Oil.
32- 6-2 Roundsley, Sunburst Oil & Gas.
24-32-1 Shelby Syndicate.
28-37-2 McAlpine, Sparaton Oil Co.
20-35-2 Halter Sunburst Prod. Co.
18-34-1 Skinner, Creel et al.
32-35-1 Putnam, Keystone Oil Co.
7-34-1 Harte, Russell et al.
30-36-1 State, Tri-State Oil 3.
9-34-2 O'Haire et al.
14-35-2 Hagerty, Sunburst Oil & Gas 1.
35-35-2 Sunburst Oil & Gas 1.
22-35-2 SW, Lorenson et al.
2-34-2 Degroat, Ethridge Basin O. & G.
29-35-1 Maughan, Sweeney Oil Co. 4.
18-30-2 Ketley, Great Northern Prod.
17-35-2 Fraser, Rice Oil Co. 1.
30-35-1 Stannard, Tri-State Oil 5.
26-35-2 Abell, California Co. 5.
8-34-2 Hurley, McDonald et al.
24-34-1 Demare, Potlewaite et al 1.
1-34-2 Steel, Bruce Radigan 2.
35-35-1 Develir, Collins et al.
2-33-4 Medillia Drlg. Co. 1.
1-34-2 Faunce, Mcintire-Beckett.
26-35-2 Abell, Hardock Oil Co.
30-35-1 Maughan, Ohio Oil Co. 4.
3-35-2 Davey, Ohio Oil Co. 10.
31-35-1 Byrne, Fulton Oil Co. 11.
25-35-2 Byrne, Treasurer State 5.
2-36-3 Herman, Kevin Oil & Gas Co. 3.
34-35-2 Lashbough, Ferdig Oil Co. 11.
33-35-2 Holloran, Regina-Kevin Oil 4.
13-34-2 Morton, Liberty et al 1.
30-35-1 Maughans, Ohio Oil Co. 9.
30-34-1 Leibenan, W. T. Farrish.

Shut Down

28-35-1 Shelby, Federal-Miller.
23-33-1 Webb, Shelby Oil & Gas.
12-34-1 Peterson, Lucky Forty Oil.
13-32-2 Campbell, Campbell Synd. 5.
16-34-2 NW, Rainbow Oil Co.
1-34-2 NE, Sunburst Oil & Gas.
21-34-1 Adams, Potlatch Oil Co. 1.
Rigs, 8; wells drilling, 47; total, 55.

MISCELLANEOUS

Rigs

24-14-15 Fullerton Oil & Gas.
12-10-32 Hibbard Oil Co.
4-28-30 Mid-Northern Oil.
34-23-2 Rainbow Syndicate.
21- 7-21 SW, Atlantic Oil Co. 1.
25-17-24 NE, California Co.

Wells Drilling

3-12-25 SW, Minn. Flatwillow.
Larson Dome, Montana Belle.
33-19- 7 SW, Hager Stephenson Oil.
13-18- 2 Coal Ridge, Montana Oil & Gas.
5- 3-16 Montana Portland Oil.
33-16-28 H. H. Swartz, Jr.
9-31-19 California Co.
14-14-26 Flatwillow, A. M. Z. Synd.
32-25-30 Butler Oil & Gas.
24-30-12 Continental Prod.
17- 3-19 Snyder, Mid Northern Oil.
4-27-30 California.
20-24- 1 C. A. McDonald et al.
16-15-25 SW, Great Northern Mutual.
3-27- 8 Robinson et al.
Genton Lake Browning et al.
McDonald Creek, Wilson Fisher 3.
32-36- 2 Weil Syndicate.
7- 8-27 NE, California Montana 1.
17- 2-18 NE Gibson Land Co.
29-38-27 Glasgow Explor. Co.
8-15-29 Deveraux, Deveraux Oil Co.
25-12- 1 Ainsworth, Neudigate Est. Inc.
18-30- 3 Kelley, G. N. Producers.
8-21-19 Bowes, California Co.
25-15-25 SW, Winnett Oil Co. 1.
26- 1-21 Modrell, Leonard Oil Co. 1.
4- 2-25 SW, C. B. McMemmemin et al.
27- 7-21 SW, Atlantic Oil Co.
18-22- 3 Elk Horn Oil Co. 1.
24-10-39 Johns et al.

Shut Down

5-35-21 NE, F. G. Ostland.
36- 1-12 State, Springdale Oil Synd.
2-26- 2 Jones, W. M. Edwards.
18- 3-23 SW, Securities Prod. Co.
5- 2-23 NE, American Indian Oil.
35-32-32 SW, Bowdoin Oil & Gas.
7-27- 7 NW, Circle Oil Co.
26-10-29 Stellar Oil & Gas 6.
32-30- 2 Denser, Drake Oil Co.
18- 6-23 Memmemier & Newmand.
6-13-24 Fulton Oil Co.
26-14-20 Jackson Oil Co.
30-15-26 Winnett Shallow Oil Synd.
7-21- 1 Tri City Oil Co.
Devils Basin, Alberta Block Coal Co.
25- 2-27 Gladys Belle Oil.
Devils Basin, Montana Central Oil.
12-11-13 Kalispell Synd.
6- 5-25 Grey Eagle Oil.
2-28- 2 NE, Dry Fork Oil.

8- 4-23 NE, Hoosier Oil Co.
24- 5- 8 SW, Potter Basin Oil & Gas.
10-18- 2 NE, Moscow-Idaho Oil.
23-30- 2 NW, West Virginia Oil.
27-26-22 SW, Mountain Chief 2.
24-14-25 NW, Henry Seibert.
14-31- 1 NW, Dunkirk Oil Co.
22- 4-31 SW, Olympus Oil Co.
32- 3-16 SW, Consolidated Oil & Gas.
34-22- 1 G. N. Mutual 1.
6- 2-24 American Indian Oil 2.
23-14-28 SE, Winnett Pacific 1.
9-10-38 SE, Stellar Oil & Gas 5.
Rigs, 6; wells drilling, 66; total, 72.

COLORADO

Rigs

10- 3-44 Yuma Valley Oil Co.
1- 8-68 Morrell, Petroleum Prod. Co.
17- 8-68 Fort Collins Chief Oil.
29-10-68 American Pet. Co.
12-38-79 Green, Mountain Pet. Co.
31- 9-68 Midway Oil & Gas.
27 2-70 Rainbow Oil Dev. Co.
26- 9-69 Benson & Mitchell 1.
30- 9-68 NW, Farrell et al.
8- 9-68 NE, Union Junior Oil Co.
10- 3-44 SW, Hessick Drilling Co.
36-10-69 State, Seneca Oil Co.
13- 6-86 SE, Panuco Exploration Co.
10-10-61 SE, Daugherty et al 1.
22- 4-92 Parkinson, Midwest Refg. Co.
18- 6-86 Dennis, Texas Prod. 1.
13- 1-46 NW, Yuma Oil Co.
30- 8-68 Whitaker Blunck, Union of Calif. 2
19- 8-68 Larson, Union of Calif. 2.

Wells Drilling

8- 9-69 Warren, Union Oil of Colorado.
6- 7-68 Brown, Fifty-Four Oil Co.
13-33-13 Hall-Murray Co.
5- 8-103 Gypsy Oil Co.
24- 5-92 Morgan, Union Oil of California.
4- 6-68 Webster, Douglas Oil Co.
10-24-69 Panuco Exploration Co.
28- 3-64 Watkins, Miller Oil Co.
24- 4-92 Franch, Midwest Refg. Co.
17- 5-64 Hog Ranch, Roland Oil Co.
5- 6-68 Majestic Oil Co.
4-32-67 Tulsa Oil Leasing Co.
34- 8-68 Ruff, Victory Oil Co.
9-12-68 Panuco Exploration Co.
1- 9-68 NW, Great Northern Oil Co.
25- 1-69 Everhard, Boulder Oil Corp.
30-27-45 NW, Lamar Oil Co.
30-10-68 Leroy, Wyoming Illinois Pet.
1- 5-65 Degen, A. A. Hollestone Oil Co.
6-10-69 NE, San Carlos Oil Co.
21- 3-69 Clark, Marland Oil Co.
4- 6-68 Webster, Associated Oil Co.
6- 8-102 Lidguist, Midwest Refg. Co.
36- 7-103 Smith, Midwest Refg. Co.
14- 1-66 Smith, Retter Oil Co.
34-17-70 Mutual Oil Dev. Co.
12- 9-79 McCallum Continental Oil Co.
4-20-69 Templeton, Continental Oil Co. 572
16-21-65 Columbus Heights Oil Co.
9-17-67 John Jr., Red Creek Oil Co.
36-10-69 State, Union of Calif.
Fremont Co., Parkdale Oil & Gas.
17-17-64 Christy Oil Co.
31-10-68 Messerschmidt, Union of Calif.
31-10-68 Buckeye, Union Oil 4 and 3.
32-10-68 Hess, Union of Calif.
7- 9-68 Gault-Platt, Union of Calif. 1 and 2.
7- 9-68 North Poudre, Union of Calif.
28-28-52 SE, Colorado Oil Co. 1.
22- 4-92 Parkinson, Midwest Oil 3.
28-20-69 Travis-Raddat Syndicate 4.
15- 4-91 Pohlman, Texas Prod. Co. 1.
18- 6-86 Tow Creek, Texas Prod. Co. 2.
27-20-69 Good Luck Oil Co.
1- 8-69 Warral, Cons. Oil Fields.
18- 9-68 Elder, Union Oil Co.
16- 4-91 Wick, Texas Prod. Co. 2 and 3.
10- 4.91 Knowlton, Texas Prod. Co. 6 and 7
26- 7-92 NE, Boyles Oil Co.
15-20-69 Continental Oil Co. 571.
31-18-51 Mineral Exploration Co.
16-20-69 E. R. Goode et al 1 and 2.
7- 9-68 Stutchel Lake, Union Oil of Calif.
6.10-69 Rourke, Rollestone et al.
17- 9-68 Elder, Farrel's Asso.
34- 8-69 Ruff, Equitable Oil Co.
15-21-65 Union Oil of Colo.
30- 2-102 Emerald, Texas Prod. Co.
4.20-69 SE, Continental Oil Co. 572.
Florence, Florence Pet. Co. 1.
9-12-68 Ullum, Roland Oil Co.
19-16-48 Scholtz, California Co. 1.
3-32-12 Leidecker Pet. Corp.
23-38-12 Navajo, Erdman et al.
30-27-45 Johnson, Chesapeake Oil Co.
8- 8.102 Smith, Sun Oil Co.
6-23- 2 C. W. Kirkwood.
32-33-12 Hutchinson, E. J. Miley 1.
4-34-62 Frisco, Mt. States Oil Co.
11- 4- 8 H. H. Temple et al.
6.23-62 State, Bent County Oil & Gas.

Shut Down

32-20-63 Baxter, Salida Oil & Refg. 2.
17- 2- 8- NW, Carter Oil Co.
36- 9-69 NE, Atlantic Pet. Co.
31- 9-26 NW, White River Dev. Co.
22-21-100 Wm. Morris et al.
30- 2-102 SE, Midwest Refg. Co.
13- 8-68 Hoff, Centennial & Sunset.
28- 5-91 Freeman, Texas Prod. Co.
33- 5-91 Hamilton, Texas Prod. Co.
25-24-61 SW, Utah Southern Oil.
28-28-32 Associated Oil of Colorado.
28-27- Gehrung, Sand Hill Oil Co.
32-31-61 Colorado Oil Co.
23- 6-69 Ruekvetter, Wellington Oil Co.
19- 5-69 Alps, Gateway Oil Co.
23- 9-69 Waverly, Consolidated Oil Fields.
32-10-68 SE, Imperial Oil Co.
25- 8-68 NE, American Pet. Corp.
18-20-46 Ne-No-Shee Oil Co.
13- 1-46 Yuma 2, Hessick Drilling Co.
11- 1-44 Hildrith, Hessick Drilling Co.
24- 9-69 Hanna, Wellington Oil Co.
6- 7-68 NE, Bonner Oil Co.
17-17-64 NW, Peerless Oil Corp.
30- 4-68 NW, Panuco Exploration Co. 27.
4-45.16 NW, Gilmore Oil Co.
24- 2-103 Rigby, Midwest Refg. Co.
Rigs, 19; wells drilling, 103; total, 122.

UTAH

Rigs

18-23-21 Metropole Oil Co.
4-22-19 Crescent Dome Pet.
8-28-22 Utah Oil Dev. Co.

Wells Drilling

19-22-21 Utah Oil & Refg. Co.
35-40-90 Utah Oil & Refg. Co. 2.
31-43-10 Utah Oil & Refg. Co. 3.
Roselle District, Lakeside Oil Co.
16- 2- 5 State, Western Empire Oil 1o.
32-42.17 Monroe Oil Co.
Diamond Fork, Gustaven Oil Co.
31-32-16 Culbertson, Marland Oil Co.
7-21-19 SW, Standberg Pet. Co.
Grand County, Radatz Synd.
23- 3-24 Clay Basin, Prod. & Refgs. 2.
12-19-13 Utah Oil & Refg. Co.
17-27-20 Shaffer, Midwest Utah Southern 2.
23-14-95 Mt. States Pet. Co.
27-21-19 Western States Dev. Co.
4-22-19 Crescent Eagle Oil Co.
22-25-21 Embar Oil Co.
4-19-25 Chas. Orchard et al.

Shut Down

6-14-13 San Juan Dev. Co.
23-42-17 Monumental Oil Co.
12-19-13 Ute Pet. & Utah Southern.
13- 4- 6 Castle, Dale Oil Co.
27-16- 4 Producers Oil Co.
Lakeside Dome, W. R. Holmes.
Deamond Fork, Franko Utah Oil.
25-13-13 Utah Central Oil Co.
34-25-21 NW, Bix Six Oil Co.
Diamond Fork, Franko Utah Oil.
25-13-13 Utah Central Oil Co.
34-25-21 NW, Big Six Oil Co.
4-22.10SE, Crescent Eagle Co.
Rigs, 3; wells drilling, 31; total, 34.

NEW MEXICO

Rigs

19-36-34 SW, Sinclair & Fenton.
15-21-33 NW, Covert et al.
19-16-34 SW, Crescent Eagle Oil 1.
17-31- 8 Huntington Park Oil.
36-12 W. M. Graham.
18-18-28 SW, Danciger-Beeson 2.
3-18-28 SW, Levers & Carpper 3.
29-17-18 Hagan, Texas Prod. Co. 1.
10- 4-28 NW, Oliver Well 1.
8-18-28 NE, Texas Prod. Co. 5.
5-18-28 State, Lever et al 5.
5-14-19 Marland Oil Co.
36- 1-21 Ingram, Navajo Oil Co.
3-13-15 State, Santa Fee Pet. Co.
27-19-38 Mescalero, Pet. Co. 1.

Wells Drilling

17-18-28 SW, Cummins 3.
21-18-28 SW, Cheesman et al.
4-18-23 SE, Pueblo Oil Co. 4.
15-19-25 SE, Effenhauser et al.
14-15-17 NW, Arkansas Fuel Co.
20-29-11 NE, West Coast Gaso. Co.
4-21-27 Olson, M. M. Miller.
15-29-11 Bloomfield Oil & Gas Co. 6.
9-30-10 Lexi Oil Co.
16-23-24 California Co.
3-12-29 Bell, Marland Oil Co.
24- 8-23 SE, Lewis et al.
30- 4- 9 NE, Red Feather Oil Co. 1.
16-29-11 SE, C. S. Ringle.
34-29-11 C. S. Ringle.
4-21-30 SW, Van Cleve & Kronen 2 and 3.
9-13-34 McGee, Olean Oil Co. 1.
24-10-27 NW, R. C. Christman 1.
23-18-11 Pan-Mex Dumas, 1.
24-31-15 W. R. Chelders.
8- 2-14 Simmons et al.
10- 3-17 Transport Oil Co.
17-18-28 NW, W. G. Hurst.
9-10-28 SW, Danciger Brothers.
33.17-20 SW, Wooley-Jones.
1-17- 9 Welch et al.
3-21- 2 Williams et al.
11-16-32 SE, New Mexico Prod. Co.
15-29-11 Butler-Stonacher Synd.
7-13-10 NW, Wood et al.
19-21-19 NE, F. A. Black Drilling Co.
25-17-16 Patterson & Stumpi.
11-18-29 Dunn Flynn, Welch & Yates 2.
15-15-29 Southern Exploration Co. 1.
4-18.28 New State Oil Co. 9 and 10.
4-18-28 SE, Fite No. 1.
5-18-28 SE, Texas Prod. Co. 4.
31-24-27 SE, Empire Gas & Fuel Co.
8-16-27 Campbell, Colo. Gas & Fuel Co.
25-11-26 SW, N. Jones.
7-18- 1 La Veutana Oil Co.
18-18-29 Edgeton, Otis Oil 1.
5-17-28 SE, New Mexico Oil Co. 1.
22-19-27 NW, Valley Oil Corp. 1.
8-16.27 SE, Colorado Drlg. Co. 1.
8-31-21 NE, Owens Albuquerque 1.
8- 6- 1 NW, De Chaves Pet. Co. 1.
2-29-19 Continental Oil 17.
5- 8-23 Peerless Oil Co.
21-18-28 SE, Illinois Prod. 30.
21-18-28 SE, Illinois Prod. 29.
29-18-28 SE, Illinois Prod. 40.
21-18-28 NE, Dome Oil Co. 5.
4-19-28 NW, Mesa Oil Co. 1.
18-18-28 SE, Danciger-Beeson.
20-18-28 SW, Shaw-Rathke.
9-16-28 NE, Drilling Co. 1.
1- 6-27 SW, Steel-Rheinsmith.
9- 6-34 Grady Oil Co.
11- 5-35 Prio Oil Co.
4- 2-20 Hinkle et al.
14-13-14 State Cons. Oil Co.
9-29-11 Bruce Bragel.
24-30-11 SW, Portage Oil & Gas Synd.
21-18-28 SE, Flynn, Welch & Yates 39.
21-18-28 SE, Flynn, Welch & Yates 41.
5-18-27 Brainard, Swarts, Compton, Eaton
31-19-28 Pruitt, Ohio Oil Co. 1.
28-18-28 NE, Illinois Prod. Co. 43.
9-18-28 NW, Illinois Prod. Co. 44.
4-18.28 SW, Pruitt Oil Co. 2.
4-18-28 SE, Frontier Oil Co. 4.
4-18-28 SW, Frontier Oil Co. 10.
5-19-28 SW, Fletcher et al.
33-18-28 NW, Snowden-McSweeney 4.
12-18-27 Pitcher Oil & Gas 2.
16- 8-27 Campbell, Colorado Gas & Fuel Co.
15-18-28 Bujac-Wright-Murphy.
28-17-28 State, Navajo Oil Co.
1- 2-32 NE, Painter et al.
29- 9-21 Steel, Rhinesmith.
8-31- 1 Block, Owens-Albuquerque.
34-23-21 H. D. Adders.
10-28-25 Moore, Red Feather Oil Co.
-29-19 Navajo, Continental Oil Co. 15.
10-27-17 Pohlmeier, Pruitt Oil Co. 6.
34-29-11 Garland, Congress Oil Co.
19-30-11 Clark, Mexhoma Oil Co.
13-33-12 Murray, W. H. Hall et al.
23-33-12 Pulliam, Erdman et al.
30-30-15 Bowman, Williams et al.
12-30-12 Lannler, Annamies Oil Co.
33-17-32 Peasall, Maljamar Oil & Gas.
5-17-32 Mitchell, Maljamar Oil & Gas.
21-17-32 Maljamar Oil & Gas.
3-18-28 Flynn, Welch & Yates 42.
28-18-28 Flynn, Welch Yates 43.
9-18-28 Flynn, Welch & Yates 44.

Shut Down

34-14-44 SW, Meadow Oil Co.
3-13-15 SW, Santa Fe Oil Co.
36-11-27 SW, Buffalo Roswell.
31- 3-15 NW, Wyo-Colo. Oil Co.
22-18-27 State, Oscar Howard.
24-29-11 Hubbell & Hall.
21-30-11 Home Gas Co.
2-19-26 Peckenbaugh, Eureka Oil Co.
1- 3-32 NE, Gurley Oil Co.
24-21-11 SE, Agnelus Mining Asso.
21-14-15 SE, Blackstone Champion.
30-13-10 SW, Wood et al.
6-29- 9 Detroit Oil Corp.
10-29-24 NW, Eureka Oil Co.
19-20-30 NE, W. C. Wells & Son.
29-29-11 Montesuma Syndicate.
12-29-13 SW, Ship Rock Oil Co.
9-30- 9 Rainbow Oil Co.
36-20-30 Yates, Keyes et al.
11-16-27 SE, Blue Bird Oil Co.
3-22-26 NE, Blue Bird Oil Co. 2.
16-13- 9 Meistead 2.
25-13-31 SE, Standard Pet. Co.
11-20-29 Rawson, William Dooley.
30-14- 9 SE, Quilin United Oil Co.
26-18-18 New Mexico Oil Co. 2.
25- 7- 2 Swisher & Wallace.
31-19-28 Johnson, Ohio Oil Co. 1.
30-28-11 New Mexico, Milwaukee Synd.
23-18-15 E. M. Treat & Co. 1.
17-17-28 SE, Bobb et al 1.
27-18-28 SE, Quillin & Dunnett 1.
15-12-23 NW, Zeppenfield Co. 1.
16- 1- 7 NE, Fort Summer Oil Co. 1.
32- 7-10 SE, California Exploration Co. 1
33-11-35 Tilton & Croft.
23-16-29 Young, Ohio Oil Co.
Rigs, 15; wells drilling, 137; total, 152.

WYOMING

Wells Completed

35-40-79 Midwest Oil Co., 34-X 5000
24-40-79 SW, Wyoming Oil Fields 31 .. 360
26-40-79 NE, Wyoming Asso. 16 500
24-40-79 SW, Wyoming Oil Fields 33-L 826
25-40-79 NE, Wyoming Oil Fields 22-A 55
34-40-79 NE, Wyoming Asso. 24-L ..1805
35-40-79 NW, Wyoming Asso. 19-L...2167
26-40-79 NE, Wyoming Asso. 17 75
35-40-79 SE, Wyoming Asso. 32 70
2-39-79 SW, Continental Prod. 4-LS .. 30
24-40-79 SE, Wyoming Oil Fields 33 .. 45
22-40-79 SE, Wyoming Oil Fields 13 .. 40
24-40-79 SW, Wyoming Asso. 11-A.... 45
26-40-79 NE, Wyoming Asso. 19-A 60
22-40-79 NE, Midwest Oil Co. 18-AS .. 35
26-40-79 SW, Midwest Oil Co. 1 51
3-39-79 NE, Salt Creek Cons. 11-A 40
23-40-79 SE, Wyoming Oil Fields 36-A 40
26-40-79 NE, Wyoming Oil Fields 22-A 20
35-40-79 SE, Wyoming Asso. 21-L ... 100
14-40-79 SE, Wyoming Asso. 21-A 30
26-40-79 SW, Wyoming Asso. 36-L 75
29-40-79 SW, Wyoming Asso. 36-L 75
29-40-78 Tract W, Texas Prod. Co. 29-A 25
3-35-65 Belle Cattle, Mutual Oil Co. 9 450
56-97 Jones, Allen Oil Co. 29 20
23-44-95 NE, Mt. States Pet. Co. ..... dry
20-46-98 Mill Iron, Ohio Oil Co. 68.... 30
2-19-88 Producers & Refiners 3 .... gas
Prairie Oil & Gas 1-A% .... gas
26.20-88 Hatfield Oil Co. 1 ..... dry
26-20-88 Hatfield Oil Co. 3 ..... gas
2-19-88 Hatfield, Prod. & Refs. .... dry
36-22-86 Sugar Creek, Prod. & Refs. .. dry
10-26-90 Prairie Oil & Gas 61-A..... 300
27- 3- 1 Enos, Argo Oil Co. 8 ..... dry
26-35-84 Clyde Brennan et al ..... gas

Wells completed 37
Production 12,229
Dry 5
Gas 4
Gas production 40,023,500

MONTANA

Wells Completed

12-33- 3 Rittenhause, Ohio Oil Co. 1. dry
31-35- 1 Byrne, Fulton Oil Co. 7 ..... gas
30-35- 1 Emmons, Dakota Montana 4... 25
7-34- 1 Wilcox, Western Montana 7 .. dry
27-35- 2 Lorensen, Sunburst Oil & Gas 6 ..... gas
31-34- 2 Overby, Sunburst Oil & Gas.. dry
3-34- 2 Moore, California Synd. 2 .. dry
11-35- 2 Stockmans Bank, Ohio Oil Co. 2 4
31-35- 2 Leach, Dupont Oil Co. 150
1-34- 2 Faunce, Adams Oil Co. 1 ... gas
9-35- 2 Howling, Mid-Northern Oil 8.. 20
32-35- 1 Putnam, Caine Oil Co. 1..... 400
30-35- 1 Stannard, Tri State Oil Co. 8 100
25-35- 2 Byrne, Fertig Oil Co. 5 25
25-35- 2 Wyomont Oil Co. 7 50
30-35- 1 Stannard, Rice Oil Co. 5 25
36-35- 2 State, Homestake Oil Co. 7..1000
30-35- 1 Stannard, Rice Oil Co. 6..... 50
31-35- 1 Emmons, Dakota Montana 8..25
31-35- 1 Byrne, Fulton Oil Co. 9 1500
31-35- 1 Byrne, Fulton Oil Co. 10..... 25
30-35- 1 Maughans, Ohio Oil Co. 4 50
30-35- 1 Emmons, Dakota, Montana 7. 50
27-35- 2 Lorensen, Sunburst Oil & Gas 5 30
1-34- 2 Lewis, Glacier Oil Co. 400
30-35- 1 Tri State Oil 2 300
35-35- 2 Abie, Fertig Oil Co. 1..... dry
30-35- 1 Stannard, Rice Oil Co. 6 300
18- 2-29 Prairie Oil & Gas 1 ..... dry
24- 1-21 Record Pet. Co. 75

Wells completed 30
Production 4604
Dry 6
Gas 3
Gas production 32,000,000

COLORADO

Wells Completed

19- 9-68 Harwood, Great Northern Oil Co. ..... dry
21-20-69 Snyder, Continental Oil Co. .. dry
18- 7-86 Babcock, Texas Prod. Co. 1 .. dry
19- 6-86 Bank, Texas Prod. Co. ..... dry
23- 5-103 Bujac-Wright-Murphy. ..... dry
8- 3 91 Morapos, Thornburg ..... dry
9- 9-101 Maire, Gypsy Oil Co. ..... dry
2 8-97 Reeder, Glen Palis O. & G. .... dry
17-16-85 Wilson, Ohio Oil Co. ..... dry
24- 8-69 Evans, Union of Calif. ..... dry

Wells completed 10
Production 0
Dry 10

NEW MEXICO

Wells Completed

14-29-11 Hare, Miley 50
17-23-10 NE, Illinois Prod. 32 100
21-18-28 Keyes, Illinois Prod. 2 75
21-18-28 Keyes, Illinois Prod. 3 75
21-18-28 SE, Dome Oil Co. 4 75
28-18-28 NW, Maljamar O. & G. 15 .. 50
28-18-28 NW, Maljamas O. & G. 16 .. 150
9-18-28 Sidler Drilling Co. 1 30
27-10-26 NE, New State Pet. Co. ..... dry
25-14-26 NE, Shaffer Oil Co. ..... dry
25-11-26 SW, White Oil Co. ..... dry
25-24- 1 Continental Oil Co. 2 ..... dry
11-19-21 Cruse, Arkansas Fuel Co. .... dry
3-27-17 Navajo, Continental Oil Co. 4 25
21-18-28 Flynn, Welch & Yates 30 150
4-18-28 McQuigg, Frontier Pet. Co. .. 75
3-18-28 Levers & Carper 150
28-18-28 Flynn, Welch & Yates 40 100
33-18-28 Snowden McSweeney 4 25
21-18-28 Keyes, Flynn, Welch & Yates 3 75
28-18-28 Twin Lakes Oil Co. 7 75
28-18-28 Spaulding Dome Synd. ..... dry
4-21-30 Snowden-McSweeney ..... dry
5-18-28 Marion, Ohio Oil Co. 1 15
8-18-28 New State, Ohio Oil Co. 1 100
22-18-28 Toomey-Allen, Ohio Oil Co. .. dry

Wells completed 27
Production 1395
Dry 9

EASTERN FIELDS

Summary of Wells Completed

Field—	Comp.	Prod.	Dry	Gas
Allegany	19	25	2	0
Bradford	86	227	1	1
Middle Field	3	4	0	0
Venango-Clarion	23	24	3	2
Butler-Armstrong	15	43	6	3
Southwest Pennsylvania	20	62	3	12
West Virginia	93	632	16	36
Southeast Ohio	62	664	15	7
Total April	321	1,681	45	61
Total March	289	2,426	36	67
Difference	32	744	9	6

Summary of Work Under Way

Field—	Rigs	Drg.	Ttl.
Allegany	13	11	24
Bradford	26	92	118
Middle Field	1	6	7
Venango-Clarion	5	18	23
Butler-Armstrong	5	14	19
Southwest Pennsylvania	9	23	32
West Virginia	47	127	174
Southeast Ohio	30	76	106
Total April 30	136	367	503
Total March 31	144	342	486
Difference	8	25	17

WELLS COMPLETED
ALLEGANY FIELD

Stevens, National Oil & Gas ..... dry
Fee, Empire Gas & Fuel, Ltd. 1
Fee, Empire Gasoline Co. Ltd. 4
Cleveland, S. J. Cleveland et al ....Water
Reid, agent, C. O. & W. O. Taylor 2
Fee, Phillips & Howard 4
Fee, Phillips & Howard .....Water
Fee, F. L. Williams 1
Fee, C. D. Henline et al 1
Fee, C. D. Henline et al 1
Fee, C. P. Brennan et al 1
Fee, Citizens Bank, Wvs. No. 62 .....Water
Fee, C. P. Brennan et al .....Water
Fee, Mrs. G. F. Richardson et al 2
Coast et al ., M. J. Crowley et al 2
Fee, Turner Oil Corp. 2
Fee, F. C. Whitford et al 3
Childs, Neal K. Wilson ..... dry

Wells completed 19
Production 25
Dry 2

BRADFORD FIELD

South Penn Oil, Wright et al 18..... 2
Bing, 326, Andrus & MacDowell 70 1
Riddell estate, South Penn Oil 51 5
Redfield, South Penn Oil 104 2
Rounds & Lawrence, South Penn Oil 52 10
Fee, W. E. Williams 19 1
Fee, Stover & Hannon 8 5
Fee, L. G. Dana 18 3
Fee, Howard Wile 13 3
Franchot, Hooker & McKay 5 1
Fee, Dana & Dana 41 .....Water
Fee, Dana & Dana 41 .....Water
Franchot, John Jackson Jr. 18 2
Fee, J. A. Walter estate 38 3
Quintuple Oil, Elizabeth Gildersleeve .. 1
Fee, South Penn Oil 1
Fee, South Penn Oil 1
Bing, Hazelwood Oil 118 3
Bing, Hazelwood Oil 116 5
Fee, South Penn Oil 33 2
Fee, South Penn Oil 40 2
Bing, South Penn Oil 64 1
Fee, Willoughby and Commercial National Bank 8 1
Fee, South Penn Oil 100 10
Fee, Roy E. Diament 13 2
Fee, South Penn Oil 185 2
Bing., 399, South Pen Oil 1
Miller, J. W. Bouton No. 2 1
Bing., 370, Hazelwood Oil 62 2
Bing., 410, South Penn Oil 36 10
Bing., 481, South Penn Oil 23 5
Bing., 425, Grant & Mohan 9 5
Bing, 499, South Penn Oil 48 1
Bing., 533, South Penn Oil 81 1
Bing., 570, South Penn Oil 109 2
Bing, 494, South Penn Oil 49 6
Bing., 494, South Penn Oil 50 8
Bing, 589, Associated Producers 364 .. 20
Bing., 593, P. A. Oakers & Sons 23 ... gas
Hodge, South Penn Oil 1
Sill, Hope Oil 3
Sill, Hope Oil 2
Pratt, Petroleum Reclamation 3
Pratt, Petroleum Reclamation 1
Pratt, Petroleum Reclamation 2
Ekas, Lloyd & Piper 2
Ekas, Lloyd & Piper 2
Whipple, South Penn Oil 2
Enterprise, South Penn Oil 1
Taylor, M. E. Jones 1
Bingham, W. E. Jones & Son 1
Monroe, DeVore et al 1
Bingham, Barry Bros 1
Taylor, South Penn Oil 2
Willett, I. Willcot heirs 1
Germer, Linwood Oil 1
Boyd, Whitehead & Carson 1
Rew, Lincoln & Brink 1
Fee, H. S. Hauenstein 2
Fee, W. J. Healey & Co. 1
Bingham, South Penn Oil 1
Bingham, H. B. Oil 1
George, Nesselson Brothers 1
Nolan, C. Nolan 2
Bingham, Paul Evans et al 1
Nolan, C. Nolan 2
Bingham, Paul Evans et al 2
Border, W. B. Miller 2
Duke, Gridiron Oil 2
Duke, Gridiron Oil 2
Haines, Coast & Storms 2
Borden, T. P. Thompson 2
Keller, Hifler & Sprague 1
Doubleday, Pressure Oil 2
Burns, Arthur Yahn 2
Baldwin, Forest Oil 3
Shenfield, W. J. Fredericks 2
Kervin, Minnich Brothers 2
Geipin, Simpson, Cooper et al 1
Duke, A. B. Oil 2
Mott, Reclamation Co. 2
Mott, Reclamation Co. 2
Baldwin, C. B. Kervin 2
Keating, Sloan & Zook 2
Keating, Sloan & Zook 2

Russell, Potter & DeVore 3
Morse, Jos. Minnich ..... dry

Wells completed 86
Production 227
Dry 1
Gas 1
Water 1

VENANGO-CLARION

Nicklin, South, Holf, Franklin Trust 88 1
Hoffman, Hoffman and Exchange Bank & Trust 14 1
Hoffman, Hawkins & Monjar 30 1
Crawford & Gregory, Oil Well Sup. 110 dry
Murphy, Taylor & Torrey, L. J. Kirkwood 21 2
Moses, S. P. McCalmont 12 1
Farringer, Citizens Banking 9 1
Graham, Exchange Bank & Kennedy 36 dry
Grove, H. C. Graham 12 1
Miller, Smith Brothers 35 1
Hughes, C. A. Hughes 1 2
McKim, Titus et al., Minnie Gallagher 4 1
McKim, Titus et al., Phil. & Boston 5 .. 1
McKee, C. L. Irwin 39 1
Riddle, Riddle, Covert et al 1 1
Splane & Co., W. W. Splane 34 1
Belchner, F. Belchner 1 ..... dry
Cohlhepp, S. R. Lewis et al 2 ..... gas
Ochs, Alum Rock Gas 1 ..... gas
Whitling, Whitling & Sons 2 2
Rowe, Fry, Carroll & Hughes 4 1
Keating, J. W. Baynham 14 2
Knappenberger, Knappenberger, Thomas et al 2 3

Wells completed 23
Production 24
Dry 8
Gas 2

BUTLER-ARMSTRONG

Campbell, M. W. Graham et al 7 2
Thompson, Sherwin & Brush 2 5
Bortz, Dufford & Co. 1 8
Hunter, Gettman & Co. 1 ..... dry
Gibson, Fennell & McGarvey 3 ..... dry
McGinley, Ryan Oil 1 2
Kramer, Southern Oil 4 8
Hockenberry, Ingold & Ruby 3 8
Myers, J. A. Elliott et al 14 ..... dry
McKenzie, Murtland et al 1 ..... dry
Lachenmayr, Reiger & Co. 3 15
Wylie, Saxonburg L. & H. 1 ..... dry
Cox, Lang & Co. 1 ..... gas
Davidson, Prospect Co. 1 ..... gas
Thielman, McClay Brothers 1 ..... gas

Wells completed 15
Production 48
Dry 5
Gas 3

MIDDLE FIELD

Irvine, D. Wade 1
Campbell, Cosper Oil 1
Lot 397, B. Hughes 5 2

Wells completed 8
Production 4

ALLEGANY FIELD
Rigs

Fee, C. M. Barnes et al.
Fee, Empire Gas & Fuel, Ltd.
Fee, Herrick & Wilbur.
Fee, Phillips & Howard.
Fee, Empire Gas & Fuel, Ltd.
Fee, Albert Oil.
Fee, F. L. Williams.
Fee, C. P. Brennan et al.
Fee, Gilligan & Dermitt.
Coast et al., James McMillan.
Fee, L. C. Whitford et al.
Kinley Oil, W. G. Weller et al.
Perkins, W. H. Lobaugh, tr.
Wells Drilling
Fanton, F. F. Ketchner.
Fee, Phillips & Howard.
Fee, Empire Gas & Fuel, Ltd.
Fee, Empire Gas & Fuel, Ltd.
Reid, agent, C. O. & W. O. Taylor.
Reid, Cora Townsend.
McDermitt, Eckhart Oil.
Coast et al., F. C. Shaner et al.
Fee, Martin Brothers & Sawyer.
Case, W. B. Davidson et al.
Childs, Neal K. Wilson.
Rigs 13, Wells drilling, 11; total, 24.

MIDDLE FIELD
Rig

T. & W., A. E. & W. C. Tompsett 74.
Wells Drilling
Irvine, D. Wade.
Beaty, W. W. Beaty.
Northrop, Knopf & Chapman.
Ull, Fidelity Petroleum 1.
Irvine, Hague & Co. 43.
Lot 397, B. Hughes 6.
Rigs, 1; wells drilling, 6; total, 7.

BRADFORD FIELD
Rigs

Moore, Moore & Moore 10.
Bing., 389, D. W. Daly 42.
Bing., 388, C. L. Wann et al 50.
Redfield, South Penn Oil 105.
Windsor, Wilson & Co. 12.
Rounds & Lawrence, South Penn Oil 53.
Franchot, W. J. Oliver 19.
Fee, Mary J. Franks 5.
Fee, C. B. Kervin.
Fee, South Penn Oil 34.
Bing., Hazelwood Oil 120.
Fee, Kaber & Kaber 35.
Bing., Hazelwood Oil 40.
Associated Producers, Holding Oil Corp. 21.
Fee, South Penn Oil 186.
Bing., 188, Harris Oil 31.
Bing., 439, South Penn Oil 98.
Bing., 425, Grant & Mohan 10.
Bing., 533, South Penn Oil 18.
Bing., 582, Associated Producers 372.
Wright, E. H. & Retta Culbertson.
Lot 3667, F. J. Moser 30.
Lot 426, Kane Oil 42.
Howard, Pressure Oil.
Duke, A. B. Oil (3 rigs).
Wells Drilling
Hodge, South Penn Oil.
Sill, Hope Oil (2 wells).
Pratt, Petroleum Reclamation (3 wells).
Ekas, Lloyd & Piper (3 wells).
Whipple, South Penn Oil.
Enterprise, South Penn Oil.
Taylor, M. E. Jones.
Bingham, W. S. Jones.
Bingham, W. S. Jones & Son.
Rew, F. D. Gallup et al (wells).
Monroe, DeVore et al.
Bingham, Barry Brothers.
Taylor, South Penn Oil.
Germer, Linwood Oil.
Corwin, Simon Brothers.
Fee, W. J. Healy & Co.
Fee, B. Devlin.
Bingham, South Penn Oil.
Bingham, H. B. Oil.
Nolan, C. Nolan.
George, Nesselson Brothers.
Bingham, J. L. Yerdon.
Emerson, G. L. Rhodes et al.
Elder, S. H. Elder & Co.
Borden, W. B. Miller.
Haines, Coast & Storms.
Borden, T. P. Thompson.
Fee, J. H. Hifler.
Meldrum, Stephan & Tapp.
Borden, Pressure Oil.
White, South Penn Oil.
Burns, Burns Bros.
Kervin, Minnich Brothers, Duke, A. B. Oil (4 wells).
Mott, Petroleum Reclamation (2 wells).
Baldwin, C. B. Kervin.
Keating, Sloan & Zook (2 wells).
Kapp, T. H. Kervin.
Russell, Potter & DeVore.
Bing., 296, Andrus & MacDowell 70.
Vincent heirs, S. H. Elder et al 16.
Lawton, Gallup Elder et al 25.
Bing., 431, J. A. Hooper 5.
Bing., 391, G. W. Bovaird 81.
Bing., 500, Daly & Healy 28.
Bing., 540, Park & Bovaird 35.
Bing. 489, T. H. Kennedy No. 2, 138.
Riddell estate, South Penn Oil 52.
Burns, et al., Bliss Oil 20.
Fee, M. C. Reidy 13.
Fee, Stover & Hannon 9.
Fee, M. C. Roat 39.
Fee, A Stover 18.
Swift, Park estate et al 3.
Fee, T. H. Given 12.
Fee, Hooker et al 8.
Fee, Hazelwood Oil 6.
Fee, T. H. Kennedy 17.
Franchot, John Jackson Jr., 19.
Fee, Dana & Dana 42.
Franchot, Maxwell Brothers 15.
Fee, T. B. Wilson 8.
Fee, L. G. Danna.
Fee, South Penn Oil.
Fee, South Penn Oil.
Fee, Mrs. Joseph T. Jones.
Bing., 150, South Penn Oil 65.
Fee, W. C. Kennedy Co. 52.
Bing., Hazelwood Oil 40.
Fee, Hilliard & Dodge 19.
Fee, South Penn Oil 101.
Bing., 159, South Penn Oil 12.
Kennedy & Clarke, Phoenix Oil 161.
Bing., 399, South Penn Oil.
Bing., 440 Hazelwood & South Penn Oil 14.
Bing., 408, South Penn Oil 15.
Bing, 482, South Penn Oil 24.
Bing., 410, South Penn Oil 37.
Bing., 370, Hazelwood Oil 69, 70.
Bing, 439, South Penn Oil.
Bing, 570, South Penn Oil 110.
Bing, 581, Associated Producers 366.
Rigs, 26; Wells Drilling, 92; total, 118.

VENANGO-CLARION
Rigs.

Kapp, United Natural Gas 1.
Murphy, Taylor & Torrey, L. J. Kirkwood 22.
Myers, Craig, Hoffman et al, 13.
Shoup, Ginter & Co. 2.
Clarion—
Boggs heirs, R. C. & W. V. Binkerd.
Wells Drilling
Blair, Reeves & Franklin Trust 46.
Moorehead, Utzinger, Mong et al 7.
Kapp, Kapp Brothers 1.
Belchner, Alum Rock Gas 19.
Brown, P. H. Speerstra 10.
Shaffer & Myers, Shaffer & Myers 1.
Plumer, Eakin & Hutchison 44.
Splane & Co., W. W. Splane 35.
Clees, P. F. Clees 7.
Belchner, Alum Rock Gas 8.
Kapp, United Natural Gas 2.
Kiser, C. E. Jeannerat 2.
Weaver, Weaver, Ray et al 5.
Berlin, Frank Etzel et al 1.
Kribbs, Wentling, Kribbs et al 3.
Wentling, H. E. Rugh 4.
Agnew, Agnew & Co. 1.
Gribel, Samuel Gribel 2.
Rigs, 5; wells drilling, 18; total, 23.

BUTLER-ARMSTRONG

Boyle, Little & Co. 1.
Dewey estate, Dewey Trust 2.
Welsh, Lang & Co. 1.
Donaldson, W. Berry et al 1.
Cochrane, Saxonburg L. & H. 1.
Wells Drilling
Jack, Sherwin & Burns 1.
Shaner & Beilstein, Shaner & Co. 3.
Bruner, Rabbitt & Hilderbrand 2.
Piester, C. A. Horton et al 1.
Denny, Denny & Co. 1.
Kramer, Southern Oil 5.
McCague, Lang & Co. 1.
Logue, McGee & Co. 1.
Bryan, T. S. Armstrong 5.
Hardy, Harmonite Oil 1.
Orphans Home, Dambaugh & Eichholtz 1.
Criner, Joseph Berry et al 1.
Marshall heirs, Marshall, Thompson et al 2.
Bachman, Keck & Co. 1.
Rigs, 5; wells drilling, 14; total, 19.

WEST VIRGINIA
HARRISON COUNTY

Sommerville, Hope Gas Co. 1 2

MARION COUNTY

Flemong, Pleasant O. & G. Co. 1 ..... dry
Conaway, So. P. O. Co. 2 ..... gas
Fleming heirs, Morgantown Oil Co. 1 .. dry

MONONGALIA COUNTY

Cook heirs, H. L. & C. S. Co. 2 ..... gas
Fox heirs, So. P. O. Co. 4 ..... gas

WETZEL AND TYLER COUNTIES

Little, Mfrs. L. & H. Co. 3 5
Wade, Carnegie Gas Co. 2 5
Mason, Wise Oil Co. ..... dry
Kotebue, Kotebue Oil Co. 2 5
Hays, D. E. Sanders 1 ..... dry
Lewis heirs, Round Bottom O. & G. Co. gas
Milliken heirs, Orndoff & Co. 3 ..... gas

MARSHALL COUNTY

Bonar, Decem Dev. Co. 7 12
Parriott, Evans & Co. 1 ..... dry
Fair, Mfrs. L. & H. Co. 1 1
Blake, Mfrs. L. & H. Co. 1 3
Evans, Mfrs. L. & H. Co. 1 ..... gas
Logsdon, Hope C. & R. Co. 5 10
Yeater, Hope C. & R. Co. 1 ..... gas
Franklin heirs, Burley & Orndoff 1 .... dry

DODDRIDGE COUNTY

Williams, Nay & Kintzer 3 40
Williams, Hope C. & R. Co. 3 15
Duckworth, Phila. Oil Co. 9 30
Maxwell, Columbia Carbon Co. 58 ..... dry
McCauley heirs, Hope C. & R. Co. 2 .. 5
Heflin, Hope C. & R. Co. 2 ..... gas
Freeman, Clifton O. & G. Co. 12 2

RITCHIE COUNTY

Hall, Britton & Co. 1 10
Goff heirs, F. J. Davis, 1 ..... gas
Batson, Hope Gas Co. 1 ..... gas
Britton, S. O. Young 1 10
Moore, Braden & Co. 1 ..... dry
Newbrough, Newbrough Farm O. Co. 1 40
Atkinson, So. P. O. Co. 3 50
Jamison, So. P. O. Co. 2 3
Adams, Eawe Brothers 3 20
Dawson, Big Four Drilling Co. 1 15
Mitchell, L. N. Rinehart 1 20
Jamison, So. P. O. Co. 1 ..... dry
Flesher, F. H. Davis Co. 1 ..... gas
Martin, Hope Gas Co. 1 ..... gas
Kennedy heirs, Howell & Co. 2 ..... gas
Conaway-Patton, Mellon & Co. 6 ..... gas

GILMER COUNTY

Hardman, Hope C. & R. Co. 6 ..... dry
C. Hardman, So. P. O. Co. 1 ..... dry
Carson, Pgh. & W. Va. G. Co. 1 ..... dry

WOOD COUNTY

Mixer, O. E. Crow 6 ..... dry
Uhl, Ruth Oil Co. 3 1
Henry, Reed & Co. 3 ..... dry
Grant heirs, So. P. O. Co. 4 2
Susan Grant, So. P. O. Co. 17 15
Coplin, Coplin Farm O. Co. 2 5

PLEASANTS COUNTY

McCoy heirs, Big Bend Oil Co. 1 .... dry
Fleming, Rock Run O. & G. Co. 4 3

ROANE COUNTY

Smith, Central O. & G. Co. 1 ..... dry
Summer, So. P. O. Co. 2 ..... gas
Painter, Big Injun O. & G. Co. 1 .... gas
Conley, Heck Oil Co. 2 20
Burroughs, Heck Oil Co. 3 15
Walters, O. F. O. Co. 1 8

CALHOUN COUNTY

Thomas, Crowley & Co. 2 ..... gas
Dye, Hope C. & R. Co. 2 ..... gas
Jarvis, Norris & Cain O. Co. 5 ..... gas
Offutt, Hope C. & R. Co. 1 ..... gas
Parsons, Hope C. & R. Co. 1 ..... gas

MASON COUNTY

McMillan, Covey & Co. 1 4

CLAY COUNTY

Brown, Sinnett & Co. Virginian G. & O. Co. 5 50
Stockly, So. P. O. Co. 16 ..... gas
Stockly, So. P. O. Co. 18 10
Stockly, So. P. O. Co. 19 65
Kyle, So. P. O. Co. 1 40
Osborne, Empire Pet. Co. 1 ..... gas
Cogar, Empire Pet. Co. 2 ..... gas

LINCOLN COUNTY

Smith, Transylvania Pet. Co. 8 ..... gas
Lawson, Grant Gas Co. 1 ..... gas
Lockwood, Ray Gas Co. 1 ..... gas
Hill, Bear Branch Gas Co. 3 ..... gas
J. J. Smith, Transylvania Pet. Co. 1 .. gas

KANAWHA COUNTY

Carter, Oakland Dev. Co. 1 ..... gas

BOONE COUNTY

C. R. M. Co., Owens B. & M. Co. 26.... gas
Pond Fork Coal Co., Owens B. & M. Co. 3 ..... gas

PUTNAM COUNTY

Simms, Reays Prod. Co. 2 8
Taylor, Scott Oil Co. 2 15
Wall, Charleston-Dungar G. Co. 1 .... gas
Smith, Charlestion-Dungar G. Co. 1 .. 20
Hanley, O. F. O. Co. 2 ..... gas
Simms, Kirtley & Kirtley 1 30
Frazier, Franklin & Dalton 1 1

CABELL COUNTY

Chapman, Aetna Oil & Gas Co. 1 ..... gas
Davidson, Aetna Oil & Gas Co. 2 .... gas
Marrison, Commercial Gas Co. 1 ..... gas

MINGO COUNTY

Cotigo Dev. Co., Pure Oil Co. 1 ..... dry

Wells completed 93
Production 632
Dry 16
Gas 36

LEWIS COUNTY
Rigs

Rhodes, Pet. Star & Cayton 1.
Linger, McCall & Co. 1.
Wells Drilling
Malley, Hope Gas Co. 1.
Horner, R. Horner 1.
Duncan, Duncan O. & G. Co. 3.
Carothers, McCall & Co. 1.
Douglass, Bish & Co. 1.
Fahey, Light & Heat Co. 1.
Waugh, Phila. Gas Co. 2.

HARRISON COUNTY
Wells Drilling

Rogers, Hoffmier & Deegan 1.
Dennison heirs, Garrett & Co. 1.
Smith Brothers, Reserve Gas Co. 1.
Martin, Hope C. & R. Co. 4.
Fitrow, S. L. Horner 1.
Norman, Grasselli Chem. Co. 1.
Thornbury, Grasselli Chem. Co. 1.
Wilkison, Grasselli Chem. Co. 1.
Shuttleworth, Grasselli Chem. Co. 1.

MARION COUNTY
Rigs

Yost, Owens B. & M. Co. 1.
Thorn, Owens B. & M. Co. 2.
Wells Drilling
Miller, Bell O. & G. Co. 1.
Freeland, Owens B. & M. Co. 1.
Musgrove, Owens B. & M. Co. 1.
Yost, Owens B. & M. Co. 1.

MONONGALIA COUNTY
Rigs

Wright, Carnegie Gas Co. 1.
Eddy, So. P. O. Co. 14.
Wells Drilling
Kennedy heirs, Pgh. & W. Va. G. Co. 1.
Tennant, Pgh. & W. Va. G. Co. 1.
Fetty, Red Top O. & G. Co. 4.
Varner heirs, Dunn Mar O. & G. Co. 4.
Wilson, Carnegie Gas Co. 1.
Moore, Carnegie Gas Co. 2.

WETZEL AND TYLER COUNTIES
Rigs

Antill, John Gas Co. 5.
Ritter, Hope C. & H. Co. 6.
Eddy, McIntyer Brothers O. Co. 1.
Carney, Hope C. & R. Co. 1.
McGinnis, H. L. Lambert 3.
Wells Drilling
Peterson, John Gas Co. 1.
Fox, Mfrs. L. & H. Co. 1.
Bates, Trainer & Ash 1.
Balwaz, Hope C. & R. Co. 1.
Yeater, Hope C. & R. Co. 1.
Jackson, Hope C. & R. Co. 1.
Kimble, L. L. Correll 1.
Johnston, Mfrs. L. & H. Co. 1.
Hemelrick, Hope Gas Co. 3.
Hixenbaugh, Roy Clovis & Co. 1.
Miller, Morgan Brothers O. & G. Co. 1.
Morgan heirs, Albert Neely 1.
Miller, Hope C. & R. 1.
Long, Myers O. & G. Co. 1.

MARSHALL COUNTY
Rigs

Bonar, Decem Dev. Co. 5.
Campbell, Conly & Co. 1.
Jochum, Spider O. & G. Co. 1.
Wells Drilling
Ritter, Mfrs. L. & H. Co. 3.
Keller, Mfrs. L. & H. Co. 6.
Newman, Burley & Co. 1.
McCuskey heirs, Waynesburg Gas Co. 1.
Russia, Hicks O. & G. Co. 1.
Fair, Hope C. & R. Co. 1.

DODDRIDGE COUNTY
Rigs

Freeman, Clifton O. & G. Co. 13.
Smith, Hope C. & R. Co. 6.
Wells Drilling
Underwood, Morbel O. & G. Co. 1.
Ferris, R. S. Monroe 4.
Heflin, C. H. Pigett 4.

RITCHIE COUNTY
Rigs

Hogue, Hope Gas Co. 1.
Cox, Valley Oil Co. 1.
Mason, P. H. McDonough 1.
W. Va. Tract, Wiles & Co. 1.
W. Va. Tract, Whitewood Oil Co. 29.
Mitchell, L. N. Rinehart 2.
Wells Drilling
Prunty, Cain Run O. & G. Co. 3.
Batson, Hope Gas Co. 2.
Washburn, Carnegie Gas Co. 1.
Donley, E. E. Pope 1.
McCosh heirs, Wilson & Co. 1.
Wilson, W. R. Hays 1.
Jonas, Coss O. & G. Co. 3.
Crofton heirs, Hope C. & R. Co. 1.
Howell, Moore & Co. 1.
Ridgeway, Continental O. & G. Co. 2.
Phillips, Hope C. & R. Co. 1.
Lowthers, Penn Royal Oil Co. 5.

GILMER COUNTY
Rigs

Tierney, Jas Tierney 3.
Wells Drilling
Stump, Hope C. & R. Co. 1.
Moore, Hope C. & R. Co. 1.
Farmton, Hope C. & R. Co. 1.

WIRT COUNTY
Wells Drilling

Eagle, J. S. Wilson 7.
Rathbone tract, Roberts Brothers 145.
Heck heirs, Darby & Co. 1.

WOOD COUNTY
Rigs

Wharton, So. P. O. Co. 4.
Grant, So. P. O. C. 18.
Lenhart, Four S. O. & G. Co. 2.
Wells Drilling
Lauer, Hoglan Oil Co. 16.
Harris, Big Run O. & G. 4.
Wharton, So. P. O. Co. 3.
Grant, Congdon & Woodyard O. Co. 10.

PLEASANTS COUNTY
Rigs

Varner, Adam Ward 12.
Markley, Phila. Oil Co. 1.
Wells Drilling
DeLong, DeLong Farm O. & G. Co. 1.
Robinson, Coleman & Co. 1.
Marsh, Phila. Oil Co. 6.
Ambler, Bailey Gas Co. 6.

ROANE COUNTY
Rigs

Nichols, So. P. O. Co. 1.
Wells Drilling
Conley, Heck Oil Co. 3.
Dicks, Heck Oil Co. 1.
Harless, G. L. Cabot 1.
Butcher, G. L. Cabot 1.

CALHOUN COUNTY
Rigs

Summers, M. F. Crowley 1.
Richards, Chemical Oil Co. 1.
Cross, Hope C. & R. Co. 1.
Stalnacker, Phila. Oil Co. 3.
Wells Drilling
Gainer, Hope Gas Co. 1.
Blake, Hope Gas Co. 1.
Stump, Hope Gas Co. 1.
Sourbourn, Hope Gas Co. 1.
Simmers, White Pine O. & G. Co. 1.
Fogle, Hope Gas Co. 1.

MASON COUNTY
Wells Drilling

McMillan, Covey & Co. 1.

CLAY COUNTY
Rigs

Casto 260 a, Virginian G. & O. Co. 13.
Brown Swan & Co. Virginian G. & O. Co. 7, 8, 9.
Swan, Goshorn & Co. Virginian G. & O. Co. 10.
Stockly, So. P. O. Co. 20, 22, 23, 24, 25.
Kyle, So. P. O. Co. 2, 4, 7.
Belcher, So. P. O. Co. 4, 5.
Wells Drilling
Casto, Virginia G. & O. Co. 12.
Swan, Goshorn & Co. Virginia G. & O. Co. 3.
Brown, Swan & Co., Virginia G. & O. Co. 6.
Caston, Ohio Fuel Oil Co. 9.
Stockly, So. P. O. Co. 17, 21.
Kyle, So. P. O. Co. 5, 6.
Belcher, So. P. O. Co. 2, 3.
Samples, Empire Pet. Co. 1.
S. Samples, Chalmers O. & G. Co. 1.
Boggs, U. F. G. Co. 1.

LINCOLN COUNTY
Rigs

Adkins, Orlando O. & G. Co. 3.
Egnor, Col. G. & E. Co. 1.
Wells Drilling
Cooper, Union O. & G. Co. 1.
Burton-Bredlove, Union O. & G. Co. 1.
Lovejoy, Col. G. & E. Co. 1.
R. Lovejoy, Col. G. & E. Co. 1.
Dingess, U. F. G. Co. 1.
Thompson, Sovereign Gas Co. 1.
Jaynes, Laurel Dev. Co. 1.
Marris, A. F. Marris 4.
Creek L. & M. Co. Cambridge Gas Co. 1.
Linville, Cambridge Gas Co. 4.
Maddox, Transylvania Pet. Co. 1.

KANAWHA COUNTY
Wells Drilling

Morrison, U. F. G. Co. 1.
Hunt, U. F. G. Co. 1.
Henderson, U. F. G. Co. 1.
Jackson, U. F. G. Co. 1.
Woods, U. F. G. Co. 1.
Gibson, U. F. G. Co. 1.

BOONE COUNTY
Wells Drilling

Wetherell, So. P. O. Co. 1.
Lafollette-Robson, Pure Oil Co. 26.
Robson-Pritchard, Pure Oil Co. 6.

LOGAN COUNTY
Wells Drilling

Cole-Crane, Zohnhimer & Gibbs 3.

PUTNAM COUNTY
Wells Drilling

Eggleton, Teays Prod. Co. 1.
Smith, C. & D. N. G. Co. 2.

CABELL COUNTY
Wells Drilling

Davidson, Aetna O. & G. Co. 3.
Morrison, Sweetland & Co. 1.

MINGO COUNTY
Wells Drilling
Costerman estate, A. B. McGrew, Jr., 11.
Logan Cannel Coal Co., A. B. McGrew, Jr., 1
WAYNE COUNTY
Wells Drilling
Anderson, A. B. McGrew, Jr. 1.
Rigs, 47; wells drilling, 127; total, 174.

SOUTHWEST PENNSYLVANIA
Wells Completed
ALLEGHENY COUNTY
Westr, Geo. Weir 1 5
Dean, Duniap & Co. 1 ..... gas
Dethett, Behm & Co. 1 ..... dry
Hahn heirs, Walley & Co. 1 ..... dry
Bloom, Smith & Co. 1 ..... gas
Dusold, Robinson Nors. 1 7
BEAVER COUNTY
D. Dawson, Reed & Co. ..... dry
GREENE COUNTY
Lemley, Dunn Mar G. & G. Co. 2 ..... gas
Haines, Peoples Gas Co. 1 ..... gas
Fox, Martin O. & G. Co. 3 ..... gas
O. E. Lemley, Carnegie Gas Co. 2 6
King, Carnegie Gas Co. 1 ..... gas
Roberts, Eddy & Co. 1 ..... gas
C. Roberts, Eddy & Co. 1 ..... gas
Hughes, Bundy Bros. & Co. 2 ..... gas
Loar, Covert Bros. & Co. 1 1
Hawkins heirs, Hawkins O. & G. Co. 1 gas
Closser, Mfrs. L. & H. Co. 9 40
Linch, Phila. Oil Co. 2 ..... gas
Taylor, Peoples Gas Co. 1 ..... gas

Wells completed 20
Production 62
Dry 6
Gas 12

WASHINGTON COUNTY
Rig
Tyler Tube Co., Tague & Co. 1.
Wells Drilling
Durban, Tague & Co. 2.
Hathawey, Mfrs. L. & H. Co. 2.
Taylor, Taylor & Co. 1.
Boone, E. E. Robertson 1.
Bedillion, Day & Bumgard 1.
ALLEGHENY COUNTY
Rigs
Kirsh heirs, Mellon & Pollock 1.
Aulston, Nicholas & Miller 1.
Ickley, Harbison & Co. 1.
Casley, Robinson Brothers 1.
Shannon, Sohn & Co. 1.
Wells Drilling
Wallace, Parker & Co. 4.
Huggins, Pikerton & Newhart 1.
Willoughby, Pinkerton & Co. 1.
Wilson heirs, E. L. Oles 1.
BEAVER COUNTY
Dawson, Reed & Co. 2.
GREENE COUNTY
Rigs
Headlee, South Penn Oil Co. 3.
Murriner, Peoples Gas Co. 1.
Lemley, Peoples Gas Co. 1.
Neill, Carnegie Gas Co. 1.
Clovis heirs, Mfrs. L. & H. Co. 4.
Tripp, Black & Co. 2.
Hopkins, Mfrs. L. & H. Co. 1.
McClelland, Carnegie Gas Co. 1.
Caseman, Caseman O. & G. Co. 1.
Wells Drilling
Lemley heirs, Fox O. & G. Co. 1.
Johnson, Phila. Gas Co. 1.
Williamson, Fred Garrison 1.
South, Fred Garrison 1.
Minor, Phila. Gas Co. 1.
Hagan, Bell & Co. 1.
Hennen, Mfrs. L. & H. Co. 2.
Foredyce, Clovis & Co. 1.
Henkins, Carnegie Gas Co. 2
Antill, Carnegie Gas Co. 2.
Grimes, Mfrs. L. & H. Co. 1.
Rutan, N. G. Co. of W. Va. 4.
Scott, Consumers Fuel Co. 1.
Rigs, 9; wells drilling, 23; total, 32.

SOUTHEASTERN OHIO
Wells Completed
Crawford & Co., E. Jeffers 8 ..... dry
PERRY COUNTY
Howdyshell, Howdyshell & Co. 1 ..... gas
HOCKING COUNTY
Sunday C'k C. Co., Sunday C'k C. 135.. 25
Miller, O. F. S. Co. 2 47
Miller heirs, Graystone Oil Co. 4 25
Flukart, Logan G. Co. 1 10
Hoskins, Ohio Fuels G. & S. Co. 3 5
Schneider, Schneider & Co. 1 5
Tracy estate, Kachelmacher estate 20 .. 100
Cobb-Bradley, A. H. Suire, 14 75
HOLMES COUNTY
Carpenter, Ohio Oil Co. 2 15
Miller, Ark. Fuel O. Co. 2 ..... gas
Close, Empire G. & F. Co. 2 30
Sowash, East Ohio Gas Co. 2 ..... gas
GUERNSEY COUNTY
Mercer, Ohio Oil Co. 2 ..... gas
Walter, Ohio Oil Co. 1 ..... gas
LICKING COUNTY
Fleming, W. J. Wherle 1 5
Wilhelm, E. H. Everett Co. 1 55
Myers, Leonard O. & G. Co. 1 ..... gas
Ferry, Edmonds & Co. 7 5
Hansberger, O. F. S. Co. 1 12
Hansberger, O. F. S. Co. 2 8
McKinney, Rugg & Co. 3 4
McKinney, Rugg & Co. 4 5
Pound, Farmer & Co. 1 3
Cotterman, Detex O. & G. Co. 6 4
COSHOCTON COUNTY
Conkle, East Ohio Gas Co. 2 ..... dry
MORGAN COUNTY
Longstreth, Sun Oil Co. 5 ..... gas
Swytzer, Sun Oil Co. 17 20
Stoneburner, Swingle O. & G. Co. 1 .... gas
KNOX COUNTY
Davidson, Margaret Oil Co. 21 5
Hall, Ark. F. O. O. Co. 1 5
Snively, East Ohio P. & R. Co. 16 2
NOBLE COUNTY
Crock, Wickens & Co. 1 ..... dry
Morland, Mosley & Co. 5 ..... dry
Cisler, Hanlon & Co. 2 ..... dry
Boyd, Scheetz & Co. 9 1
ATHENS COUNTY
Baker, Ohio O. & G. Co. 4 10
Alderman, Ohio O. & G. Co. 3 10
Biddle heirs, Biddle O. & G. Co. 3 20
Lawson, Bickel & Son 4 1
Russ, Brooks O. & G. Co. 1 ..... dry
Gift, Ohio O. & G. Co. 2 ..... dry
MEIGS COUNTY
Holter, Lebow & Co. 3 10
McBride, Clifton & Co. 2 4
WASHINGTON COUNTY
Gitchell heirs, Henderson Oil Co. 2 40
Little, G. W. Keaselring 15 2
Bowersock, West & Co. 1 ..... dry
Holland, Bentz Oil Co. 1 ..... dry
Young, Beckert & Co. 4 2
Smith, H. Schneider, 5 ..... dry
Donhiston, River Gas Co. 1 1
Onhiston, Rose & Co. 5 2
Yost, Harris & Co. 4 ..... dry
Schramm, Clymer & Co. 2 30
Schmidt, Patterson & Co. 4 ..... dry
Denn, E. A. Metcalf 1 ..... dry
JEFFERSON COUNTY
McCullough Bros. Festner & Co. 4 15
Cooper, Cooper & Co. 1 ..... dry
Bayer & Co., Groves & Co. 1. 2
COLUMBIAN COUNTY
Unger, Homeworth Parties 1 ..... dry
Cameron, Davidson & Co. 1 1

Completed 62
Production 664
Dry 15
Gas 7

MONROE COUNTY
Wells Drilling
Ackerman, Jumbo O. C. & Co. 2.
Baker, Slack & Co. 1.
PERRY COUNTY
Rigs
Miller, Planet Oil Co. & Co. 1.
McCullough, Hope C. & R. 17.
Franklin Bank, O. F. S. Co. 5.
Trimmer, O. F. S. Co. 7.
Wells Drilling
Standard Hocking C. Co., Standard Hocking Co. 2.
HOCKING COUNTY
Rigs
Thrush, Thrush O. & G. Co. 2.
Blair, Jewell O. & G. Co. 1.
Mowery, Fellowship O. & G. Co. 1.
Marlow Oil Co., Griffin Prod. Co. 4.
Tracy estate, Kachelmacher estate 21.
Wells Drilling
Anthony, Gordon Oil Co. 4, 5.
Campbell, Uknown 1.
H. V. P. Co., Chartiers Oil Co. 197, 198, 199.
Hazelton heirs, Big Ten O. & G. Co. 2.
HOLMES COUNTY
Rigs
Middaugh, Leonard O. & G. Co. 1.
Rombacher, O. F. S. Co. 1.
Metherow, Empire G. & F. Co. 2.
Wells Drilling
Hammemontrew, East Ohio Gas Co. 1.
Middaugh, Ohio Oil Co. 1.
Mohr, Ohio Oil Co. 2.
Fyers, Ohio F. G. Co. 2.
Davenport, Empire G. & F. Co. 2.
Grib, Ark. F. O. Co. 2.
Schlarb, East Ohio Gas Co. 1.
Bell, East Ohio Gas Co. 2.
Schuler, Globe O. & G. Co. 1.
Netherow, Empire G. & F. Co. 1.
Bridges, Empire G. & F. Co. 2.
Kendall, East Ohio Gas Co. 6.
Miller, Empire G. & F. Co. 2.
GUERNSEY COUNTY
Rigs
Gibson, T. A. Matthews 1.
Fulton, Stoltz & Co. 1.
Archer, Ohio F. G. Co. 1.
Woodburn, Ohio F. G. Co. 1.
Ford, Ohio F. G. Co. 1.
McHaffey, Ohio Oil Co. 1.
Keith, Ohio Oil Co. 1.
Wells Drilling
Knight, Big Lime Oil Co. 2.
Watson, O. F. G. Co. 1.
Morrison, O. F. G. Co. 1.
Shrum, O. F. G. Co. 1.
Ankrum, Ohio Oil Co. 2.
MUSKINGUM COUNTY
Wells Drilling
Williams, Logan Gas Co. 3.
Unterzumber, Cambridge Gas Co. 2.
Irwin, Pure Oil Co. 1.
LICKING COUNTY
Rigs
Miner, Hope C. & R. Co. 1.
Hanover Brick Co., Hope C. & R. Co. 2.
Porter, E. H. Everett Co. 4.
Hupp, Midland Oil Co. 1.
Wells Drilling
Phillips, Hope C. & R. Co. 3.
Brown, Hope C. & R. Co. 1.
Stitt, Whitehill & Co. 5.
Haynes, E. H. Everett Co. 3.
Walcott heirs, E. H. Everett Co. 2.
Vanwinkle, Preston Oil Co. 2.
Mossholder, Murphy Oil Co. 2.
Martin, Hope C. & R. Co. 1.
Ferry, Ohio F. S. Co. 1.
Pound, Farmer & Co. 2.
McKinney, North Fork O. Co. 26.
Disponnett, J. T. Bebout 3.
Orr, Smith, Hazlett & Co. 3.
Bogle, Midland Oil Co. 2.
Cooperrider, Midland Oil Co. 2.
Effner, Hope C. & R. Co. 1.
Mowry, Detex Oil Co. 3.
Montgomery, E. H. Everett Co. 6.
COSHOCTON COUNTY
Rigs
McKee, Spindler, Donan & Co. 4.
Fair, Ohio Oil Co. 15.
Wells Drilling
Norris, Leonard O. & G. Co. 3.
MORGAN COUNTY
Rigs
Hughes, Pure Oil Co. 6.
Fye, Pure Oil Co. 8.
Huffman, Bowman O. & G. Co. 1.
H. D. Huffman, Cameron Gas Co. 1.
Bush, Pure Oil Co. 4.
Wells Drilling
Fletcher, Swingle O. & G. Co. 6.
Bell, Dailey Oil Co. 2.
Fye, Sun Oil Co. 1.
KNOX COUNTY
Wells Drilling
Heaton, Pure Oil Co. 2.
Hagans, Reed Drilling Co. 1.
Richert, Eat Ohio P. & R. Co. 5.
NOBLE COUNTY
Rigs
Hill, Harper & Co. 1.
Wells Drilling
Misel, Hall & Co. 3.
Longfellow, Wasn. & Noble Gas Co. 1.
Williams, Herds O. & G. Co. Inc. 4.
Watson, Ohio F. S. Co. 1.
Brown, Yearin & Co. 2.
ATHENS COUNTY
Wells Drilling
Biddle, Biddle O. & G. Co. 6.
Lax, Eagan & Co. 1.
Higgins, Cross & Co. 4.
Atkins, Ohio O. & G. Co. 4.
MEIGS COUNTY
Wells Drilling
Snowball, Benedict & Bush 1.
Singer, Meigs O. & G. Co. 1.
McBride, Clifton & Co. 3.
WASHINGTON COUNTY
McConnell, Clark & Todd 7.
Wells Drilling
Patterson, Burgen Oil Co. 6.
Williams, Torner & Co. 1.
JEFFERSON COUNTY
Wells Drilling
Dorrance heirs, Brown Vorhess & Co. 1.
CARROLL COUNTY
Wells Drilling
Harrington, N. G. Co. of W. Va. 2.
BELMONT COUNTY
Wells Drilling
Jeffers, Hamilton & Co. 1.
COLUMBIANA COUNTY
Wells Drilling
Deborsh, Bennihoff & Co. 13.
Hoffman heirs, Canton Parties 2.
Rigs, 30; wells drilling, 76; total, 106.

CENTRAL OHIO

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Knox	0	0	0	1	2	3	
Ashland	4	0	0	4	4	4	8
Medina	1	1	0	0	3	2	5
Lorain	6	0	3	3	1	2	3
Wayne	5	25	2	2	4	4	8
Holmes	7	140	1	1	3	15	18
Athens	2	0	0	2	2	6	8
Coshocton	3	15	0	2	2	3	5
Cuyahoga	2	0	0	2	1	3	4
Guernsey	2	0	0	2	8	6	14
Total Apr....	32	181	6	18	29	47	76
Total Mar...	35	514	11	18	19	58	77
Difference ..	3	333	5	0	10	11	1

ASHLAND COUNTY
Wells Completed
Hanover—J. E. Shoudt, Ohio Fuel Gas 1 gas
Frank Firestone, Logan Gas 1..... gas
Sullivan—S. Sponsler, Klise-Eckstein-McCann 2 ..... gas
Troy—Hartsmiller, Hulse & Kundtz 1.. gas

Wells completed 4
Gas 4

MEDINA COUNTY
Chatham—Geo. W. Packard No. 2, E. R. Edson & Sons Co. 19 1
LORAIN COUNTY
Columbia—W. W. Goodman, East Ohio Gas 2 ..... gas
Chas. Broszek, Wiser Oil 1 ..... gas
E. E. Churchwood, Daugherty Bros. 2 gas
Ruth A. Rogers, Empire G. & F. 1... dry
Ridgeville—A. H. Atkinson, Logan Gas 1 dry
Avon—J. Miller, Edson & Co. 1..... dry

Wells completed 6
Dry 3
Gas 3

WAYNE COUNTY
Wooster—Wm. M. Orr, Ohio Oil 4..... gas
Lee Martin, Ohio Oil 2 25
Milton—D. W. Hemming, Logan Gas 1. dry
Congress—S. A. Swanson, Warren Palmer & Co. 2 ..... gas
Chester—W. Rathburn, Logan Gas 1... dry

Wells completed 5
Oil well 1
Production, oil 25
Dry 2
Gas 2

HOLMES COUNTY
Monroe—C. E. Carpenter, Ohio Oil 2... 15
Wm. Miller, Ark. Fuel Dil 2..... 10
B. C. Bird, East Ohio Gas 4..... gas
Prairie—L. A. Sowash, East Ohio Gas 4 25
W. H. Miller, Empire G. & F. 2..... dry
Richland—Geo. W. Brown, Logan Gas 1 15
Hardy—Jesse P. Close, Empire G. & F. 2 75

Wells completed 7
Oil wells 5
Production, oil 140
Dry 1
Gas 1

ATHENS COUNTY
Carthage—McKinley, Fairfield Gas 3... gas
C. D. Swartz, R. E. Hamrick & Co. 2 gas

Wells completed 2
Gas 2

COSHOCTON COUNTY
Newcastle—Wm. Johnson, Bell Bros. 2. gas
Cassingham-Heabig, Bell Bros. & Cassingham 10 ..... gas
Clark—John Concle, East Ohio Gas 2.. 15

Wells completed 3
Oil wells 1
Production, oil 15
Gas 2

GUERNSEY COUNTY
Adams—James Mercer, Ohio Oil 2..... gas
Walter T. Mehaffey, Ohio Oil 1..... gas

Wells completed 2
Gas 3

CUYAHOGA COUNTY
Dover—J. C. Lemmon, McGrath & Co. 1 gas
H. Mitchell, Hulse & Kundtz 2..... gas

Wells completed 2
Gas 2

KNOX COUNTY
Rig
Jefferson—J. Rowland, Ohio Fuel Gas 1.
Wells Drilling
Jefferson—Jacob Greer, James E. Greer 1.
Geo. W. Schultz, J. B. Reed & Co. 1.
Rig, 1; wells drilling, 2; total, 3.
ASHLAND COUNTY
Rigs
Orange—K. H. Flute, Logan Gas 1.
J. F. Brockaway, Logan Gas 2.
Wm. H. Brandt, Logan Gas 1.
Sullivan—Addison Stentz, Logan Gas 1.
Wells Drilling
Orange—J. F. Brockaway, Logan Gas 3.
P. C. Fritzmeyer, Preston Oil 1.
Greene—J. F. Jones, Ohio Fuel Gas 1.
Clear Creek—L. C. McClain, Savannah Oil & Gas 1.
Rigs, 4; wells drilling, 4; total, 8.
MEDINA COUNTY
Rigs
Montville—B. L. McFadden, Ohio Fuel Gas 1.
Lafayette—R. O. Wheeler, Ohio Fuel Gas 1.
Liverpool—Albert Trefany, Ohio Fuel Gas 1.
Wells Drilling
Chatham—L. J. Kent, Star Oil 7.
York—Frederick Baker, Hulse & Kundtz 2.
Rigs, 3; wells drilling, 2; total, 5.
LORAIN COUNTY
Rigs
Columbia—S. A. Ives, Empire Gas & Fuel 1.
Wells Drilling
Columbia—C. & I. Chope, Dillon & McFrederick Bros. 1.
Huntington—Catherine Cassell, East Ohio Gas 1.
Rigs, 1; wells drilling, 2; total, 3.
WAYNE COUNTY
Rigs
Wooster—Lee Martin, Ohio Oil 3.
Milton—C. W. Frick, East Ohio Gas 2.
Green—A. J. Shisler, Logan Gas 1.
Chippewa—J. Muck, East Ohio Gas 1.
Wells Drilling
Wayne—J. B. Yoder, W. E. Hawk & Co. 1.
Paint—J. M. Westcott, Ohio Fuel Gas 1.
Cannan—T. A. Morrow, Wm. Denny & Co. 1.
Harry Giffin, J. R. Mayes & Co. 3.
Rigs, 4; wells drilling, 4; total, 8.
HOLMES COUNTY
Rigs
Hary—D. Neterson, Empire Gas & Fuel 2.
Lewis Donald, Empire Gas & Fuel 1.
Kilbuck—Sanford Carpenter, East Ohio Gas 1.
Wells Drilling
Monroe—U. S. Davenport, Empire Gas & Fuel 2.
Lizzie Rambacher, Ohio Fuel Gas 1.
W. H. Geib, Arkansas Fuel Oil 2.
Prairie—Wayne F. Kendall, East Ohio Gas 6.
Hardy—C. E. Schlarb & Co., East Ohio Gas 1.
Harvey Bell, East Ohio Gas 2.
Mary E. Bridge, Empire Gas & Fuel 2.
D. Netherson, Empire Gas & Fuel 1.
Geo. Schuler, Warren Palmer & Co. 1.
Kilbuck—Rachael Mohr, Ohio Oil 2.
Albert Smith, Ohio Oil 1.
Isaac Pyers, Ohio Fuel Gas 1.
Chas. Hammondtree, East Ohio Gas 1.
Paint—Yost Weaver, Ohio Fuel Gas 1.
E. M. Miller, Logan Gas 1.
Rigs, 3; wells drilling, 15; total, 18.
ATHENS COUNTY
Rigs
Carthage—E. Cole, Logan Gas 1.
Waterloo—Lafayette Hewitt, Gunther & Co. 2.
Wells Drilling
Carthage—J. E. Bailey, Jay Oil & Gas 9.
G. E. Bradford, Goddard & Cunningham 1.
Oliver Davis, Hawkins & Co. 1.
J. L. Yarner, Fairfield Gas 1.
Rome—E. S. Bryon, H. W. Leeper & Co. 3.
Troy—H. F. Richardson, Bowser & Co. 1.
Rigs, 2; wells drilling, 6; total, 8.
COSHOCTON COUNTY
Rigs
Perry—Marion G. Wright, Klise-Eckstein-McCann 1.
Newcastle—Rodenhour Canal Bed, Cline Bros. 1.
Wells Drilling
Perry—Wheeler Mossholder, Murphy & Co.
E. R. & O. M. VanWinkle, Logan Gas 2.
Newcastle—Cassingham-Heabig, Bell Bros. & Cassingham 11.
Rigs, 2; wells drilling, 3; total, 5.
GUERNSEY COUNTY
Rigs
Adams—George Bell, Ohio Fuel Gas 1.
Anna M. Jerels, Ohio Fuel Gas 1.
W. L. Ford, Ohio Fuel Gas 1.
Riley Moore, Ohio Oil 1.
M. K. Wells, Logan Gas 1.
Alice B. Mehaffey, Ohio Oil 1.
C. O. Watson, Ohio Fuel Gas 1.
Cambridge—W. C. Morrison, Cambridge Gas 1.
Wells Drilling
Adams—Frank Anthrum, Ohio Oil 2.
James Mercer, Ohio Oil 3.
Seward R. Williams, Logan Gas 3.
Unterzumber, Cambridge Gas 2.
W. O. Morris, Ohio Fuel Gas 1.
Albert Woodburn, Ohio Fuel Gas 1.
Rigs, 7; wells drilling, 6; total, 13.
CUYAHOGA COUNTY
Rig
Middleburg—P. and A. Jenke, East Ohio Gas 1.
Wells Drilling
Dover—F. A. Weston, Preston Oil 1.
Strongville—E. I. Gifford, East Ohio Gas 1.
B. H. and E. A. Adams, East Ohio Gas 1.
Rig, 1; wells drilling, 3; total, 4.

LIMA FIELD

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wood	1	89	1	0	1	9	10
Hancock	4	61	0	0	1	6	7
Allen	2	52	0	0	1	3	4
Auglaize	3	65	0	0	0	6	6
Sandusky	6	43	0	1	1	1	2
Mercer	2	16	0	0	0	1	1
Van Wert	1	4	0	0	0	0	0
Seneca	0	0	0	0	0	2	2
Lucas	0	0	0	0	0	2	2
Ottawa	4	58	0	0	1	2	3
Shelby	6	50	0	0	2	5	7
Hardin	0	0	0	0	0	7	7
Darke	0	0	0	0	0	1	1
Paulding	0	0	0	0	2	0	2
Logan	0	0	0	0	0	1	1
Clark	0	0	0	0	0	1	1
Michigan	3	47	0	0	0	7	7
Total Apr...	39	485	1	1	9	54	63
Total Mar...	30	495	1	2	15	49	64
Difference...	9	10	0	1	6	5	1

WELLS COMPLETED
WOOD COUNTY
Henry—F. Bealer, Ohio Oil 29 34
John Carhill, Trail Oil 5 2
Bloom—Mary E. & L. Whitman, Ohio Oil 1 5
Liberty—Caleb Mercer, Ohio Oil 13 10
Jonas E. Parmenter, Ohio Oil 13 .... abd
Geo. Bordner, Queen Oil 2 3
Portage—M. Aurand, Wm. & M. Aurand 2, 3, 10, 11, 13, 14. ..... abd
Perrysburg—O. B. Spilker, Huffman & Haas 4..... 16
Geo. Deverns, Oko Oil & Gas 4 9
Webster—Hugh Stewart, Hugh Stewart 2 ..... dry
Mike Roller, John Geldin & Co. 1 20
Lake—E. R. Bahnsen, Chas. Obermeyer 1, 2 ..... abd

Wells completed 9
Production 89
Dry 1
Abandoned 10

HANCOCK COUNTY
Liberty—E. Crow, Baseline Oil 1 10
Portage—J. E. Moorehead north, Ohio Oil 11 11

C. L. Turley, Ohio Oil 8 20
Eagle—Alice Stauffer, Star & Clark 8.. 20

Wells completed 4
Production 61

ALLEN COUNTY

Bath—Wm. Lenney, Chas. Geselchen & Co. 4 40
Spencer—John A. Beerman, Gwinn Oil & Gas 5 12

Wells completed 2
Production 52

AUGLAIZE COUNTY

Moulton—J. Harshbarger, Kelly Brothers 1 14
Jackson—Clemens Enneking, Rock Oil 1 50
Washington—Henry Steve, E. B. Jack & Co. 2 1

Wells completed 3
Production 65

SANDUSKY COUNTY

Woodville—Herman Linke, Chas. F. Zeising & Co. 10
Washington—Henry Kinker, Ohio Oil 5 9
Scott—Cletus Flack, Harley, Henderson & Warner 5 10
Cora M. Kleinham, O. K. Kleinham & Co. 1 ..... gas
W. H. Shantenberger, Sherman & Hayes 10, 11 ..... abd
Jackson—Rinebold, B. J. Rinebold 8.... 2
W. D. Hummel, Hurry Up Oil 6 12
Fred Peach, Fred Peach 1 ..... abd
J. Wagner, John Spohn 1, 2, 3 ..... abd

Wells completed 6
Production 43
Gas 1
Abandoned 6

MERCER COUNTY

Center—Henry S. Lewis, N. E. Masters 2 1
Mosan Townsend, Mack P. Colt & Co. 1 15
Union—J. M. Yocum, Mack P. Colt & Co. 1, 2, 3, 4 ..... abd
Jac Yocum fee, Mack P. Colt 1, 2, 3, 4 abd
J. R. Wooden, Mack P. Colt 2, 3 ..... abd

Wells completed 2
Production 16
Abandoned 10

VAN WERT COUNTY

York—G. W. Crone, Margaret E. Grace & Co. 4 4

OTTAWA COUNTY

Harris—Ed W. Yeastings, Zorn-Hornung Oil 13 15
Ernest Bussman, River Oil 8 8
Chas. H. Magsig, Gust Magsig & Son 11 15
John H. Meyer, Ohio Oil 7 20

Wells completed 4
Production 58

SHELBY COUNTY

Cynthian—E. Lollemond, Ellerman Oil 2 22
Henry Wissman, W. E. McKelvey & Co. 5 1
Joe Siegel, Wittmer property trustee 4 15
Felix Grilliox, Lee A. Watson 4 5
Felix Grilliox, Lee A. Watson 5..... 5
McLean—Frank Ernst, Wittmer property trustee 1 2

Wells completed 6
Production 50

MICHIGAN

SAGINAW COUNTY

Saginaw — A. Kuintzer, Saginaw Prospecting 1 20
J. W. Weiss, The Sun Co. 1 25

Wells completed 2
Production 45

ST. CLAIR COUNTY

Port Huron—5 miles west, St. Clair-Sanilac Prospecting 1 2

WOOD COUNTY

Rigs

Perrysburg—A. H. Lindemier, Oko Oil & Gas 8.

Wells Drilling

Henry—M. Auverter, Ohio Oil 32.
Middleton—C. A. Tanner, Chas. A. Tanner 3.
Eugene Rhienfrank, Rhienfrank Golf Club 1.
Frank Rogers, Otto A. Brown 7.
Perrysburg—Louisa Deverna, Oko Oil & Gas 5.
Grace Dauer, Oko Oil & Gas 2.
George Deverna, Oko Oil & Gas 5.
Webster—Mike Roller, John Geldin & Co. 2.
Lake—H. C. Michaels, Lentz, Schultz & Co. 2.
Rigs, 1; wells drilling, 9; total, 10.

HANCOCK COUNTY

Rigs

Biglick—L. Wonders, Ridge Oil & Gas Synd. 1.

Wells Drilling

Liberty—J. K. Wheeler, Baseline Oil 5.
J. Steen, Baseline Oil 11.
Eagle—Frank Freed, R. T. Rittenhouse 3.
Orange—Asa Strayton, Ohio Oil 24.
Biglick—S. Seiber, Kirk & Fitcher 1.
Union—W. S. King, N. E. Bryson 16.
Rigs, 1; wells drilling, 6; total, 7.

ALLEN COUNTY

Rigs

Bath—P. D. Driver, O. T. Botkins & Co. 2.

Wells Drilling

Bath—Wm. Lenney, Chas. Geselchen & Co. 5.
Spencer—Elmer Wilkins, Briggs Oil 1.
Louis Mouser, Boyd & Stelzer 1.
Rigs, 1; wells drilling, 3; total, 4.

AUGLAIZE COUNTY

Wells Drilling

Moulton—J. H. Goochenour, Ohio Oil 17.
Chas. Fritz, Wheeling & Zimmerman 1.
Douvhouquet—C. Vossler, Vossler Oil 4.
Fred Koch, Vossler Oil 1.
Salem—W. T. Seibert, Bachelor Oil 9.
Pusheta—John Kinter heirs, Cook & Crow 1.
Wells drilling, 6.

SANDUSKY COUNTY

Rigs

Washington—J. H. Bergman, Ohio Oil 13.

Wells Drilling

Washington—Amos Waggoner, Sherman & Richards 1.
Rigs, 1; wells drilling, 1; total, 2.

MERCER COUNTY

Wells Drilling

Center—Mosan Townsend, Mack P. Colt & Co. 2.

SENECA COUNTY

Wells Drilling

Clinton—A. E. Geyer, Arthur E. Geyer 1.
Liberty—Leister & Tilliston, J. H. Murphy & Son 6.
Wells drilling, 2.

LUCAS COUNTY

Wells Drilling

Jerusalem—R. H. and M. A. Eck, Ohio Oil 21.
Monclova—Wm. Black, L. W. Vermilya, receiver, 2.

OTTAWA COUNTY

Rigs

Harris—H. W. Nieman, Burman Oil 1.

Wells Drilling

Catawba—Mrs. J. F. Byrnes, Catawba Oil & Gas 1.
Salem—A. H. Mylander, Oak Harbor Nat. Gas 1.
Rigs, 1; wells drilling, 2; total, 3.

SHELBY COUNTY

Rigs

Cynthian—Theresa Guffena, Ohio Oil 2.
McLean—Henry Ernst, L. T. McGrath 2.

Wells Drilling

Cynthian—Chas. F. Broerman, Mansfield Oil & Gas 9.
J. H. Bornhorst, Lee A. Watson 5.
J. Sherman, Wittmer property trustee 1.
J. Eilerman, Siagel & Johnston 1.
McLean—Henry Ernst, L. T. McGrath 1.
Rigs, 2; wells drilling, 5; total, 7.

HARDIN COUNTY

Wells Drilling

McDonel—Mary Clark Irwin, Boston-Southwestern Oil & Gas 5.
George W. Strawn, Boston-Southwestern Oil & Gas 3.
Polly McConnel, Boston-Southwestern Oil & Gas 2.
A. B. Zimmerman, Sanford, Ulrich & Co. 6.
Gilimore-Cockley, New York Coal & 2.
Floyd C. Stolder, Cockley Oil 1.
Elizabeth McArthur, Roundhead Oil & Gas 4.
Wells drilling, 7.

DARKE COUNTY

Wells Drilling

Patterson—G. F. Treschi, Lee A. Watson 1.

PAULDING COUNTY

Rigs

Harrison—C. C. Springer, John T. Schunck 5.
A. M. Bailey, U. S. A. Oil 6.
Rigs, 2.

LOGAN COUNTY

Wells Drilling

Belle Center—Mack, G. L. Schumacher & Co. 1.

CLARK COUNTY

Wells Drilling

Madison—Mattinson, T. D. Friend 1.

MICHIGAN

SAGINAW COUNTY

Wells Drilling

Saginaw—Subdivision, Saginaw Prospecting 1.
John Palvas, Saginaw Prospecting 1.
Carl Boldebuck, Bliss Petroleum 1.
Adam Nuermyer, The Sun Co. 1.
John Schonteit, The Sun Co. 1.
Wells drilling, 5.

MONROE COUNTY

Wells Drilling

Dundee—Roe, Jackson County Oil & Gas 1.

JACKSON COUNTY

Wells Drilling

Napoleon—Silvers, Jackson County Oil & Gas 1.

ILLINOIS FIELD

Summary of Field Operations

	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Clark	12	12	0	3	3	
Crawford	5	66	1	2	6	8
Lawrence	0	0	0	0	5	5
Wabash	12	197	6	4	18	22
Marion	1	0	1	0	1	1
Coles	0	0	0	0	1	1
Douglass	0	0	0	0	1	1
Jasper	1	5	0	0	1	1
White	0	0	0	1	0	1
Morgan	2	0	2	0	1	1
Fayette	0	0	0	1	1	2
Edwards	0	0	0	1	0	1
Randolph	1	1	0	0	1	1
Montgomery	0	0	1	0	0	0
Madison	0	0	0	0	1	1
McDonough	1	0	1	0	1	1
Total April	27	281	12	9	41	50
Total March	18	492	5	7	41	48
Difference	9	211	7	2	0	2

WELLS COMPLETED

CLARK COUNTY

Parker—J. S. Phillips, Ohio Oil 23..... 3
J. S. Phillips, Ohio Oil 24 5
Westfield—Samuel James, Ohio Oil 24 4

Wells completed 3
Production 12

CRAWFORD COUNTY

Oblong—A. Reedy 40-a, Mahutska Oil 19 50
E. D. Culp, Ohio-Silurian Oil 10 5
H. M. Wilson, Peoples Banking & Trust 9 ..... dry
Martin—G. B. Hicks heirs, Ohio Oil 10 abd
Honey Creek—R. Weger, Craig, Lowrie & Co. 11 10
Licking—Silas Wilkin, Peoples Banking & Trust 3 1

Wells completed 5
Production 66
Dry 1
Abandoned 1

LAWRENCE COUNTY

Dennison—J. M. Gee, Citizens Oil 6 .... abd
A. M. Legout, Citizens Oil 7 ..... abd
Jane Jones, Maple Oil 10 ..... abd

Wells abandoned 3

WABASH COUNTY

Wabash—M. Madden, Mahutska Oil 3. .. 65
Ed Armstrong heirs, Mahutska Oil ..6 2
Marcotte-Cisil, W. C. McBride Inc. 4.. 10
Marcotte-Cisil, W. C. McBride Inc. 3.. 30
H. S. Shaffer, R. Donathan & Co. 1.. dry
Hoison-Dorney, Dane Oil 4 10
C. Keyser, Wirebaugh & Co. 2 ..... abd
C. Keyser, Wirebaugh & Co. 4 ..... dry
H. Buchanan, Leighty & Co. 1 ..... dry
Collison heirs, Ellison & Co. 2 ..... dry
Friendsville—C. Frick, Henley & Lee 1 dry
Jabez E. Taylor, Miller & Co. 1 .... dry
Robt. Yelton, Bell Bros. 1 80

Wells completed 12
Production 197
Dry 6
Abandoned 1

MARION COUNTY

Centralia—Chas. Rowekamp, Floyd Alspach & Co. 4 ..... dry

JASPER COUNTY

Grandville—Wm. Freeland, Upton Oil 2 5

MORGAN COUNTY

Jacksonville—Sec. 15-9-3w, Cody & Co. 2 dry
Sec. 15-9-4w, Unknown 1 ..... dry

Wells completed 2
Dry 2

RANDOLPH COUNTY

Sparta—Near Tilden, E. G. Mason & Co. 1 1

MONTGOMERY COUNTY

Nokomus—Oldham Dome, Oldham Dome Oil & Gas 1 ..... dry

McDONOUGH COUNTY

Plymouth—Colmar-Stoneking, Unknown 2 ..... dry

CLARK COUNTY

Wells Drilling

Parker—J. S. Phillips, Ohio Oil 25.
Westfield—W. R. Shuey, Adkins & Co. 1.
Martinsville—Harriett Slater, Mahutska Oil 3.
Wells drilling, 3.

CRAWFORD COUNTY

Rigs

Prairie—Amelia E. Joseph, McNally & Star 7.
Russell—A. J. Vaught, Hartman & Co. 1.

Wells Drilling

Oblong—O. R. Smith, Mahutska Oil 17.
Martin—A. M. Shipman, James Pease & Co. 14.
Montgomery—G. B. Ford, Walter Squires & Co. 9.
Honey Creek—L. N. Tohill, Phipps, Cawood & Co. 7.
Claudia A. Reavill, Selby-Cisler Prod. 27.
Robinson—E. E. Newlin, Canadian Oil & Gas 15.
Rigs, 2; wells drilling, 6; total, 8.

LAWRENCE COUNTY

Wells Drilling

Dennison—Elydia Ridgeley, Ohio Oil 11.
Thos. Taylor, Treat-Hays Oil 1.
James Armstrong, Phipps & Co. 1.
George Smith, Art Smith & Co. 1.
Petty—Wm. Ross, Silurian Oil 18.
Wells drilling, 5.

WABASH COUNTY

Rigs

Friendsville—A. Bert Keen, Peiper & Co. 1, 2.
Ed Hartwick, Miller & Co. 1.
Wabash—F. M. Leek, Clark, Oldendorf & Co. 3.

Wells Drilling

Wabash—M. Madden, Mahutska Oil 4.
J. F. Stillwell, Mahutska Oil 6.
John Stillwell, Adams Corner Oil 1.
Mack Madden, Adams Corner Oil 3.
Hoison-Dorney, Max Oil Co. 7.
Kate Kyser, Joe S. Young, Jr. & Co. 4.
Jesse Cisil, Eastern Gulf Oil 2.
Cisil heirs, Cisil Heirs Oil 3.
Dave H. Price, Joe S. Young, Jr. & Co. 2.
J. W. Price estate, Hupp, Duff & Co. 1.
J. T. Smith, Black Gold Oil 4.
Kogan heirs, Mayhugh & Co. 4.
Marcotte—Cisil, W. C. McBride Inc. 5.
Friendsville—J. O. Wood, Clark, Oldendorf & Co. 1.
John Price, Joe S. Young, Jr. & Co. 2.
Robt. Diddle, Henneberger & Co. 1.
J. O. Wood, Watson & Brewer 1.
Ed Bass, Healey & Lee 2.
Rigs, 4; wells drilling, 18; total, 22.

MARION COUNTY

Well Drilling

Centralia—Fanny McIntosh, James Oil 2.

COLES COUNTY

Well Drilling

Charleston—Earl Thralkill, Block O 11 Corp. 1.

DOUGLASS COUNTY

Well Drilling

Sargent—W. W. Brown, Douglas Oil 1.

JASPER COUNTY

Well Drilling

Grandville—Arthur Leamon, The Pure Oil 1.

WHITE COUNTY

Rig

Grayville — James Helm, Grayville Oil Synd. 1.

MORGAN COUNTY

Well Drilling

Jacksonville—N. E. Part Range 10, Jacksonville parties 1.

FAYETTE COUNTY

Rig

Fayette—John Baxter, M. McCurdy 1.

Well Drilling

Fayette—Ohio Oil 1.
Rigs, 1; wells drilling, 1; total, 2.

EDWARDS COUNTY

Rig

Near Grayville—Porter & Co. 1.

RANDOLPH COUNTY

Well Drilling

Sparta—McElroy, Bill Goddard & Co. 1.

MADISON COUNTY

Well Drilling

Two Miles, N. E. Belleville—Unknown 1.

McDONOUGH COUNTY

Well Drilling

Plymouth—Colmar-Stoneking, Unknown 3.

INDIANA FIELD

Summary of Field Operations

	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Wells	0	0	0	1	1	
Jay	0	0	0	1	3	4
Adams	1	3	0	0	4	4
Delaware	0	0	1	0	0	0
Randolph	0	0	0	1	0	1
Gibson	0	0	0	0	3	3
Pike	3	43	1	1	5	6
Sullivan	0	0	0	0	1	1
Knox	1	0	1	0	6	6
Allen	0	0	0	0	2	2
Daviess	0	0	0	0	3	3
Henderson	0	0	0	0	1	1
Jackson	0	0	0	0	1	1
Shelby	0	0	0	0	1	1
Lagrange	0	0	0	0	1	1
Vigo	0	0	0	0	1	1
Dubois	0	0	0	0	1	1
Warrick	0	0	0	0	1	1
Total April	6	46	3	3	35	38
Total March	5	28	3	4	32	36
Difference	1	18	0	1	3	2

JAY COUNTY

Wells Completed

Bear Creek—Haviland, C. S. Haviland 1 abd

ADAMS COUNTY

Blue Creek—G. Runyon, Schuit & Co. 2 3

DELAWARE COUNTY

Delaware—J. W. Goings, J. E. Houck Oil & Hawkins 11 ..... dry

PIKE COUNTY

Logan—J. S. Wilson, Miller & Davis 1.. 22
Ralph Robling, Loeb & Skidmore 1... dry
McDaniel, Consolidated Oil 10 ..... abd
Atkinson, Consolidated Oil 1 ..... abd
Monroe—Geo. A. Taylor, Gem Oil Corp. 2 20
Madison—Sarah J. Thomas, Ohio Oil 4 abd

Wells completed 3
Production 43
Dry 1
Abandoned 3

KNOX COUNTY

Decker—Decker, Unknown 1 ..... dry

WELLS COUNTY

Well Drilling

Nottingham—H. J. Helstand, Say Oil 1.

JAY COUNTY

Rig

Bear Creek—Irwin Campbell, H. L. Ogle & Co. 3.

Wells Drilling

Bear Creek—H. Armontrout, Heeter & Daugherty 11.
Greene—Roe Houck Bloxsome & Co. 1.
Penn—S. E. Davis, Amber Oil Producing 11.
Rigs, 1; wells drilling, 3; total, 4.

ADAMS COUNTY

Wells Drilling

Jefferson—Mary J. Niblick, J. H. Harmon & Co. 4.
Wabash—Armstrong heirs, Chicago Oil 2.
J. S. Steiner, M. S. Daugherty & Co. 3.
Monroe—Christ Stengle, R. S. Anderson & Co. 1.
Wells drilling, 4.

RANDOLPH COUNTY

Rig

Greene—W. Cline, T. O. Thorp 2.

GIBSON COUNTY

Wells Drilling

Washington—W. A. McRoberts, Ohio Oil 4.
White River—Lulu P. Harvey, Bell Bros. 1.
Barton—T. J. Parker, Gem Oil Corp. 2.
Wells drilling, 3.

PIKE COUNTY

Rig

Logan—E. Beck, Alex Singer & Co. 2.

Wells Drilling

Logan—Wm. Miley, J. Morsey & Co. 1.
Sarah Shoaf heirs, Andrews & Burden 2.
Miley—Chandler, C. Chandler & Co. 1.
Monroe—Parker & Wilson, Ohio Oil 1.
Clay—Stewart Brothers, Murphy Oil 3.
Rigs, 1; wells drilling, 5; total, 6.

SULLIVAN COUNTY

Well Drilling

Turman—M. J. Baird No. 2, Ohio Oil 25.

ALLEN COUNTY

Wells Drilling

Maumee—W. Kammyer, Estes, Manion & Co. 1.
J. H. Garber, Schuran Oil 3.
Wells drilling, 2.

KNOX COUNTY

Wells Drilling

Decker—Ballentine, Russell Producing 1.
P. Steckler, Unknown 1.
Musselman, Eastern Gulf 1.
Nellie M. Orr, Eastern Gulf 1.
Henry Sullivan, Unknown 1.
Harrison—W. E. Harrison, Murphy Oil 4.
Wells drilling, 6.

DAVIESS COUNTY

Wells Drilling

Veale—J. E. Peek, Commercial Producing 1.
Gaither, Sargent, Hartman & Co. 3.
Unknown, Washington parties 1.
Wells drilling, 3.

HENDERSON COUNTY

Well Drilling

Clay—W. E. Christy, Amo Oil 1.

JACKSON COUNTY

Well Drilling

Near Freetown—Unknown 1.

SHELBY COUNTY

Well Drilling

Van Buren—J. Harshbarger, L. N. Nicholson 1.

LAGRANGE COUNTY

Well Drilling

Howe—Howe Oil & Gas 1.

VIGO COUNTY

Well Drilling

Sugar Creek-Nattkemper, Welch, Flynn & Gambill 1.

DUBOIS COUNTY

Well Drilling

Cass—Wm. Meissner, Wheeler & Co. 1.

WARWICK COUNTY

Well Drilling

Pidgeon—Vock & Folson, Turner Oil & Gas 1

KENTUCKY-TENNESSEE

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Warren	11	22	3	0	1	13	14
Allen	11	21	3	0	0	9	9
Barren	26	122	9	1	0	29	29
Owensboro district	14	184	4	0	3	19	22
Cumberland-Monroe	9	460	2	0	0	26	26
Adair	0	0	0	0	2	1	3
Hopkins	0	0	0	0	0	1	1
Simpson	0	0	0	0	0	5	5
Green	0	0	0	0	0	2	2
Casey	0	0	0	0	0	2	2
Wayne	2	2	2	0	1	7	8
Lee-Owsley	1	10	0	0	0	9	9
Lawrence-Johnson	8	65	0	0	3	10	13
Johnson-Mayoffin	3	21	0	0	3	8	11
Floyd	1	0	0	1	0	6	6
Knox	0	0	0	0	0	2	2
Estill	4	20	0	0	0	3	3
Wolfe	1	10	0	0	0	0	0
Morgan	1	2	0	0	0	5	5
Elliott	0	0	0	1	0	2	3
Menifee	0	0	0	0	0	2	2
Laurel	0	0	0	0	0	1	1
Jackson	0	0	0	0	0	1	1
Greenup	0	0	0	0	0	1	1
Kentucky	92	939	23	2	14	164	178
Tennessee	8	835	1	0	0	12	12
Mississippi	0	0	0	0	0	3	3
Alabama	0	0	0	0	0	5	5
Georgia	0	0	0	0	1	3	4
Total Apr.	100	1,774	24	2	18	192	210
Total Mar.	61	580	18	0	15	173	188
Difference	39	1,194	6	2	3	19	22

WELLS COMPLETED

WARREN COUNTY

Bowling Green—C. G. Davenport, Onsel Tanrahan Oil 5 5
J. G. Barbee, Orin Wood 5 ..... dry
Bessie Snell Clark, New Domain Oil &

Gas 4 2
C. G. Davenport, T. A. Sheridan 4 2
J. T. Vance, Dr. W. B. Cauble & Co. 4 dry
W. R. Price, Caskey & Pryor 8 ..... dry
J. M. Morgan, Brand & Henderson 5 2
Stone, Foster & Co. 8 2
J. T. Vance, Illinois-Ky. Oil Synd. 8 4
Ford, Roy Hogan 8 3
Shannon, Wiles & Co. 4 2

Wells completed 11
Production 22
Dry 3

ALLEN COUNTY

Scotsville—E. Hinton, Clarion-Pittsburg Oil 4 3
Meader, W. H. White 3 ..... dry
W. B. Tabor, White Plains Oil & Gas 21 1
H. Ayres, Zeigler & Co. 1 ..... dry
Phoebe Oliver, American Nat. Bank 13 1
W. L. Motley, R. A. Stohr 6 1
W. L. Motley, R. A. Stohr 6 1
G. W. Pearson, West Penn Oil 12 ..... dry
A. A. Davenport, Fred W. Owens 7 .. 2
A. A. Davenport, Fred W. Owens 8 .. 3
A. A. Davenport, Fred W. Owens 9 .. 3
I. H. Rickman, Citizens Oil 14 7

Wells completed 11
Production 21
Dry 3

BARREN COUNTY

Glasgow—W. E. Steffy, T. L. Gorby & Co. 2 2
Zeigler, Houchins Leasehold 11 4
Zeigler, Houchins Leasehold 12 5
F. C. Moore, Fred C. Moore 13 5
John Seay, Wood Oil 1 ..... gas
Boyd, Zeigler Bros. 1 20
Minnick, Keys Oil Corp. 1 1
Poynter, Gumm & Messinger 1 1
Ellis, Williams & Co. 2 3
H. W. Duff, Consolidated Gas 16 12
Chamberlain, J. W. Porter 1 ..... dry
Casaday, Hiland Oil & Gas 14 8
Casaday, Hiland Oil & Gas 15 10
Sanders, Jacob Best 5 ..... dry
Walter Bales, T. L. Gorby & Co. 3 .. dry
Ellis, T. L. Gorby & Co. 1 ..... dry
Sink Smith, Wood Oil 1 ..... dry
Depp-Greer, Lew J. Emery, Jr. Sons 25 8
Depp-Greer, Lew J. Emery Jr. Sons 26 dry
Pedigo, Zeigler Bros. 1 ..... dry
Keaton, Wood Oil 1 ..... dry
Morton, Esslinger Oil 1 8
C. B. Jones, Esslinger Oil 3 25
C. B. Jones, Esslinger Oil 4 ..... dry
Matthews, Finch & Co. 1 8
Adj. Matthews, Wentworth Oil 1 2

Wells completed 26
Production 122
Dry 9
Gas 1

OWENSBORO DISTRICT
(Hopkins-Ohio-Daviess Counties)

Owensboro—Kirk & Woodward, Petroleum Extraction 1 ..... dry
Lucinda Crowe, C. E. Daugherty & Co. 9 15
J. J. Midkiff, White Plains Oil & Gas 2 15
H. S. McBrayer, White Plains Oil & Gas 4 4
R. B. Powers 96-a, Wah-Shah-She Oil 2 ..... dry
Myers, Ohio Oil 1 ..... dry
Guenther-Gant, Chicago Petroleum Syndicate 3 35
Jo. Bob Ellis, H. M. Loman trustee 1 15
J. N. Swope, Penn-Indiana Oil Synd. 12 25
Laura Mercer, Penn-Indiana Oil Synd. 2 15
R. B. Powers 105-a, Penn-Indiana Oil Synd. 4 10
R. B. Powers 105-a, Penn-Indiana Oil Synd. 5 10
Lon R. Helm, C. A. Leeper 7 40
J. L. Howard, Daviess County Oil 7.. dry

Wells completed 14
Production 184
Dry 4

CUMBERLAND-MONROE COUNTIES

Kettle Creek—Millard Kerr, A. S. McClintock Atty. 10 5
Bedford Coffee, A. S. McClintock Atty. 1 ..... dry
Pulsey Creek—J. M. Hughes, McClintock, Reid & Co. 3 ..... dry
Williams Prong—J. E. Rush, Kanawha Oil 1 15
John Finley, Dr. Lang 1 100
Crocus Creek—G. W. Brockman, Baird & Hickman 1 100
J. Grider, Baird & Hickman 1 200
J. Grider, Baird & Hickman 2 100
J. H. Morgan, Baird & Hickman 1 .. 40

Wells completed 9
Production 460
Dry 2

EASTERN DIVISION
WAYNE COUNTY

District 13—L. T. Guggey, Marsh & Shearer 2 ..... dry
District 3—Burnett heirs, D. C. Adkins 4 ..... dry
District 5—Coffey-Oats, Abbott, Porter & Co. 3 2

Wells completed 3
Production 2
Dry 2

LEE-OWSLEY COUNTIES

District 18—Flahaven Land Co., Ohio Oil 81 10

LAWRENCE-JOHNSON COUNTIES

District 22—C. E. Frailey, Swiss Oil Corp. 14 6
R. N. Sparks, Swiss Oil Corp. 7 4
C. K. Dobyne No. 2, Swill Oil Corp. 7 5
Caney Sparks, Swiss Oil Corp. 10.... 5
District 32—P. P. Holbrook, Swiss Oil Corp. 15 20
J. M. Fyffe, Swiss Oil Corp. 16 10
J. M. Fyffe, Swiss Oil Corp. 17 5

Wells completed 8
Production 65

JOHNSON-MAGOFFIN COUNTIES

District 29—Oscar Wheeler, Hudson & Collins 8 13
S. W. Phipps, C. A. Kirk 2 1
District 31—J. M. Frazier, Short Fork Oil 3 5

Wells completed 3
Production 21

FLOYD COUNTY

District 21—Maude Conley, Eastern Carbon Black 3 ..... gas

ESTILL COUNTY

District 7—Reid heirs, C. O. Amsler 3 .. 5
C. B. Howell, Marcum & Howell 2 2
District 8—Owen Puckett heirs, Superior Oil Corp. 3 5
S. M. Maple, Reno Oil 4 8

Wells completed 4
Production 20

WOLFE COUNTY

Torrent District—Miller, Pruitt-Goff Petroleum Exploration 12 10

MORGAN COUNTY

Ophir—A. J. Tackett, C. W. Wheeler & Co. 13 2

TENNESSEE
CLAY-JACKSON COUNTIES

Tinsley Bottom—Hamp Lynn, Dafee & Co. 8 10
Hamilton, C. F. Dickson 1 ..... dry
Clark Pool—Thurman, H. Z. Clark & Co. 1 500
Stone heirs, H. Z. Clark & Co. 1..... 50
James Arms, H. Z. Clark & Co. 1... 60
A. T. Davis, Dixon, Bayless & Douglass 1 25
A. T. Davis, Dixon, Bayless & Douglas 2 40
Willow Grove—Petway Demis, Carnahan & Horn 1 150

Wells completed 8
Production 835
Dry 1

WARREN COUNTY

Bowling Green—Worden, C. B. Tannehill 2.
Wells Drilling
Bowling Green—Gillespie 50-a, American National Bank 11.
Ben Ford, American National Bank 9.
Keller, Al F. Haynes 1.
Manning, Golden Flash Oil 4.
Covington Blk 7, Wm. Zimmer 10.
C. E. Snell, Lincoln Oil Producing 4. 5.
Jas. Dethridge, A. B. Hudson Atty. 2.
Mary Ferguson, Onsel-Hanrahan Oil 12.
W. R. Hunton, P. H. Lavelle 8.
J. M. Morgan, Brand & Henderson 6.
N. L. Miller, Petroleum Exploration 1.
C. H. Daugherty, F. F. Blanchard & Co. 1
Rig, 1; wells drilling, 13; total, 14.

ALLEN COUNTY
Wells Drilling

Scottsville—Angel Meredith, G. W. Hahn 11.
E. Newman, Bastrus & Co. 3.
S. & K. Thratton, Vic De Gaigney 7.
Lee Moore, Lee Moore 5.
Lon Oliver, Cyhus & Harley 5.
Earl Oliver, M. S. Hails & Co. 2.
J. T. Johnson, R. A. Stohr 8.
I. N. Rickman, Citizens Oil 15.
Dovie Mantle, Huffman & Co. 10.
Wells drilling, 9.

BARREN COUNTY
Wells Drilling

Glasgow—Marshall, Unknown 1.
Mayfield, Houchins Leasehold 10.
Pitcock, Houchins Leasehold 20.
Wilson, Philip Kopel 1.
Zeigler, Houchins Leasehold 13.
Brunton, Fred C. Moore 7.
Boyd, Ziegler Brothers 2.
White-Smith, Harrington & Norris Bros. 3
H. W. Duff, Consolidated Gas 17.
Maddox heirs, Harrington & Norris Bros. 2
Depp, Consolidated Gas 13.
Richardson, Richardson Farm Oil 4, 5.
Everette, Kopel Oil 2.
Richardson, Lew J. Emery, Jr., Sons 3.
Dickens, Lew J. Emery Jr., Sons 3.
Depp-Greer, Lew J. Emery Jr., Sons 24, 27
Whitney, Wood Oil 1.
McClochlin, J. W. Porter 15.
Ralston, Samson & Bowsers 1.
Casaday, Hiland Oil & Gas 16.
Spencer, Gillespie & Wiggins 1.
Williamson, North Brothers 1.
McCoy, Esslinger Oil 1.
Davidson, Houchins Leasehold 4.
Riley, Scrinneger, Wm. Christian 1.
Matthis, Baker & Co. 2.
Wells drilling, 29.

OWENSBORO DISTRICT
(Hancock-Ohio-Daviess Counties)
Rigs

Owensboro—Guenther-Gant 80-a, W. F. Stevenson & Co. 1.
W. Griffith, Penn-Indian Oil Synd. 1.
Kelley, Penn-Indian Oil Synd. 1.
Wells Drilling
Owensboro—Will Howard, Petroleum Extraction 1.
J. W. McDaniel Petroleum Extraction 1
Burdette, White & Nicklin 8.
M. M. Colyer, Leeper Oil 1.
Askin, Cornell & Weatherholt 1.
Laura Mercer, Pennsylvania-Indiana Oil 3.
C. Wittinghill, L. J. Emery, Jr., & Sons 1.
W. Gabbard, Bert Thompson 3.
Dave King, Greasy Creek Oil 8.
J. J. Midkiff, White Plains Oil 3.
Nannie Brown, Chicago Petroleum Syndicate 1.
Guenther-Gant, Chicago Petroleum Syndicate 4.
L. Crowe, C. E. Daugherty 10.
Lone Helm, C. A. Leeper 8.
Near Taffy, P. E. Tichnor 1.
Near Zion, P. E. Tichner 1.
Swope Brothers, Pennsylvania-Indiana Oil Synd. 13.
J. R. Ellis, H. M. Lowman, trustee 2.
R. B. Powers, Pennsylvania-Indiana Oil Synd. 6.
Rigs, 3; wells drilling, 19; total 22.

CUMBERLAND-MONROE COUNTIES
Wells Drilling

Burkesville—Cain, E. D. C. Lynch 2.
M. Blythe, C. A. Gartlan, trustee 6.
L. R. Blythe, Bonnell & Co. 3.
Kim Crawford, Singles & Co. 1.
J. Poindexter, Young Oil Co.2.
W. T. Blythe, Two Creek Oil 1.
C. Scott, Geo. Smith & Co. 1.
Roley Kerr, Mitchell & Co. 1.
Dave King, McClintock & Co. 1.
Hunter Short, Morris Petroleum Co. 4.
C. T. Cheatham, Alta Oil 2.
J. A. Melton, Wilcox Brothers 3.
D. Baker, F. Weddle 1.
J. H. Morgan, Sam K. Baird & Hickman 2.
Elliott, Sam K. Baird & Hickman 1.
J. Grider, Sam &. Baird & Hickman 3.
Patterson, Phillippi & Co. 1.
Sarah Sheckles, Wilcox Brothers 6.
T. L. Bow, Freeman & McCormick 6.
C. C. Smith, McClintock & Co. 10.
Davis, Wilcox 1.
M. E. Coop, W. S. Raydure & Son 5.
J. B. Riddle, Hook & McComas 2.
Owens, Dr. Lang 1.
W. M. Davidson, West & Thrasher 1.
Davis, Wilcox Brothers 2.
Wells drilling, 26.

ADAIR COUNTY
Rigs

Hopewell District—Hiram Jackson, Crawford & Webster 1.
Baler-Elliott, W. A. Hass 1.
Wells Drilling
Hopewell District—G. W. Brockman, Wood Haislett 2.
Rigs, 2; wells drilling, 1; total, 3.

HOPKINS COUNTY
Wells Drilling

Nortonville—Holliman, Copper Flash Oil Co. 14.

SIMPSON COUNTY
Wells Drilling

Franklin—Hogan, Small & Sully 11.
Slate, Slate Brothers 3.
John Price, McMullen & Reagle 3.
Holeman, Lincoln Oil Prod. 1.
L. Wilkerson, Reagle, Clark & Co. 1.
Wells drilling, 5.

GREENE COUNTY
Wells Drilling

Greensburg—Curry, T. S. Curry 1.
Tucker, United Carbon Co. 1.
Wells drilling, 2.

CASEY COUNTY
Wells Drilling

Dunville—Ben Russell, Kansas City & Texas parties 1.
T. B. Hammonds, Col. Less Combest and others 1.
Wells drilling 2.

EASTERN DIVISION
WAYNE COUNTY
Rigs

District 13—M. Fairchild, E. M. Taylor 2.
Wells Drilling
District 13—L. T. Guffey, Marsh & Shearer 3.
District 2—G. Y. Davis, Vulcan Oil 17.
District 2—Coffey heirs, Bell, Bell & Co. 3.
District 2—B. S. Huffaker, B. S. Huffaker 4.
District 5—Coffey-Oatts, Abbott, Porter & Co. 4.
District 8—Kinnie, Waddle & Gibson, Beaver Pet. 4.
Oil Valley—Dabney, Wood Oil 1.
Rigs, 1; wells drilling, 7; total, 8.

LEE-OWSLEY COUNTY

District 36—Thos. Foreman, Standard Oil of Kentucky.
District 36—Baker, Watkins & Co. 1.
District 36—Unknown, Superior Oil Corp. 1.
District 36—Thomas Foreman Co.-Rex Pyramid 1.
District 35—H. D. Parrish, H. B. Sippie 3.
District 18—W. Bryant, Cook & Co. 2.
District 16—E. L. Rogers, Superior Oil Corp. 12.
District 16—W. S. Treadway, Petroleum Ex. 1.
Wells drilling, 9.

LAWRENCE-JOHNSON COUNTIES
Rigs

District 32—J. J. Skaggs, Cumberland Petroleum 4.
Robt. Fyffe, Pluto Oil 6.
District 33—Ira Lester, W. M. Stone & Co. 11.
Wells Drilling
District 32—J. J. Gambille, Swiss Oil Corp. 41.
P. P. Holbrook, Swiss Oil Corp. 38.
District 33—Nora Lemaster, J. N. Meek trustee 4.
District 22—J. D. Bond, J. T. Hare & Son 3.
L. T. Sparks, Garrison & Townsend 9.
District 22-A—C. K. Osborne, Skaggs, Miller & Co. 1.
Jess Lyons, Keaton Oil & Gas 31.
Sanford Lyons, Swiss Oil Corp. 28.
Henry McKenzie, Swiss Oil Corp. 12.
Blaine District—Devils Fork, W. E. Schwartz 1.
Rigs, 3; wells drilling, 10; total, 13.

JOHNSON-MAGOFFIN COUNTIES
Rigs

District 25—W. H. Collins, Petroleum Exploration 3.
District 27—Eliza Powers, Clyde Oil 6.
District 27—Bailey heirs, Cobb & Lucas 7.
Wells Drilling
District 27—Conley, Kentucky-Indiana Oil Trust 7.
District 29—W. H. Conley, Bed Rock Petroleum 30.
District 29—Mary Burke, R. G. Gillispie 7.
District 29—Oscar Wheeler-Hudson & Collins 9.
District 29—S. W. Phipps, C. A. Kirk 3.
District 31—C. Adams, Aliver Jenkins 1.
District 31—W. E. Patrick, Bed Rock Fet. 5.
District 31—Less Adams, No. 2, Elkhorn Coal Corp. & Medal Oil 3.
Rigs, 3; wells drilling, 8; total, 11.

FLOYD COUNTY
Wells Drilling

District 21—Meusie Martin, Ohio Fuel Oil 3.
Elkhorn Coal, Ohio Fuel Oil 5.
Mary Martin, Louisville Gas & Electric Co. 3.
T. Martin, Louisville Gas & Electric Co. 4.
T. Allen, New Domain O. & G. Co. 5.
Jack Turner heirs, Eastern Carbon Black Co. 3.
Wells drilling, 6.

KNOX COUNTY
Wells Drilling

Barbourville—Dinzey, Dinzey & McKee 1.
Red Bird Creek, Beattyville parties 1.
Wells drilling, 2.

ESTILL COUNTY
Wells Drilling

District 7—Bill Rogers, Mountain Springs Oil 13.
J. Willetts, C. O. Ansler & Co. 1.
District 8—Imp Hern, Superior Oil 7.
Wells drilling, 3.

MORGAN COUNTY
Wells Drilling

West Liberty-Pleasant Run, Jim Patton 1.
Blair Mills, Collier & Co. 1.
Ophir District—Kelly Owens, Wilson Oil 3.
W. Blanton, Conley Bros. 2.
J. Cole, Eagle Oil 3.
Rigs, 0; wells drilling, 5; total, 5.

ELLIOTT COUNTY
Rigs

District 34—H. A. Lewis, Smith & Garrison 2.
Wells Drilling
District 34—John Dials, Edna Lee O. & G. 5
Lincoln Creek—Joe Wagner, J. M. McDonald.
Rigs, 1; wells drilling, 2; total, 3.

MENIFEE COUNTY
Wells Drilling

Leatherwood — Widow Reed, McKinney Brothers 1.
Hamp Rawlings, W. O. Bach 3.
Wells drilling, 2.

LAUREL COUNTY

London—10 miles southwest of London, Standard Oil of Kentucky 1.

JACKSON COUNTY
Wells Drilling

McKee—Isaac, Standard Oil of Kentucky 1.

GREENUP COUNTY
Wells Drilling

Greenup—J. H. Flannery, Petroleum Exploration 1.

TENNESSEE
CLAY-JACKSON COUNTIES
Wells Drilling

Tinsley Bottom—Hamp Lynn, Dafoe & Co. 9
Clark Pool—J. M. Gray, H. Z. Clark & Co. 2.
A. T. Davis, Dixon, Bayless & Douglass 3.
Lanford, Miller Bros. 1.
Geo. Tinsley, Lewis & George 1.
Turkey Creek—Potter, Mendenthal Bros. 1.
Pea Ridge—Kerr, Foster Mitchell 1.
Celina—Geo. Pimley, John B. Kerr 1.
Willow Grove—Widow Hargrave, Carnahan & Horn 1.
Wells drilling, 8.

MORGAN COUNTY
Wells Drilling

Sunbright—Somers, Cockrel & Co. 1.
Glades, Knoxville parties 2.
Fee, Russell Producing 7.
Wells drilling, 3.

OVERTON COUNTY
Wells Drilling

Livingstone—Windle, Duncan & Co. 1.

MISSISSIPPI
FRANKLIN COUNTY
Rig

Jackson—Pear River, New York parties 1.

COPIAH COUNTY
Rig

Hazlehurst-Brandywine, B. W. White 1.

HOLMES COUNTY
Rig

Coxburg—18-13-1, Freeun Oil 1.

YAZOO COUNTY
Well Drilling

Eden—Reed, 25-13-1, west, Willis & Burns 1

CLAIBORNE
Wells Drilling

Port Gibson—5-11-2, Young, Mississippi Exploration 1.
West Side, Michael Zink 1.
Wells drilling, 2.

HINDS COUNTY
Well Drilling

Jackson—Reeder, Johnson Oil 1.

WASHINGTON COUNTY
Well Drilling

Glen Allen—30-14-9, Williams, Alhambra Oil 1.

TISHIMINGO COUNTY
Well Drilling

Iuka—Unknown parties 1.

TALLAHATCHIE COUNTY
Well Drilling

Charleston — 23-25-2, Harvey, Shreveport parties 1.

MARSHALL COUNTY
Well Drilling

Holly Springs— 3-32-3, Hoffman, Tom B. Slick 2.

ALABAMA
MORGAN COUNTY
Well Drilling

Albany — 6-6-4, English, Albany-Decatur Oil 1.

HALE COUNTY
Well Drilling

Greenburg—Hale Oil 1.

SHELBY COUNTY
Well Drilling

Chelsea—Scott, Cooksey Oil 1.

WILCOX COUNTY
Well Drilling

Selma—Blue Belle Oil 1.

FRANKLIN COUNTY
Well Drilling

Diamond Point—Pittsburgh Oil & Dev. 1.

GEORGIA
PULASKI COUNTY
Rig

Hawkensville—Florida Consolidated 1.

JEFF DAVIS COUNTY
Well Drilling

Hazelhurst—Mid-Georgia Oil 1.

TELFAIR COUNTY
Well Drilling

Scotland—Telfair Oil 1.

BURKE COUNTY
Well Drilling

Green Cut—Three Creeks Oil 1.

RANNEY OIL MINING COMPANY
LEO RANNEY, President
Oil Mine Engineers
26 Broadway
New York City

Northern Oil Information Bureau
Shelby, Montana
Complete weekly drilling and operating report of Kevin-Sunburst field mailed to any address, $10 for four reports. Maps and logs for sale. Best of references.
We maintain geological, land and field departments, all in expert hands.

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WHAT AND WHERE TO BUY

A Classified Index of Advertisers in This Publication

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Campbell, J. A.
Cooper, C. & G. Co.
Griscom-Russell Co.
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.

Absorption Towers—
Hope Engineering & Supply Co.
National Gas Products Co.
Newton Process Mfg. Co.

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Oxweld Acetylene Co.

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Prest-O-Lite Co., Inc.

Acetylene in Cylinders—
Prest-O-Lite Co., Inc.

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Petroleum Iron Works Co.

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Hoover Steel Ball Co.

Balls—Steel—
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Hoover Steel Ball Co.
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Marion Mch., Fdy. & Supply Co.
Moore, Lee C. & Co., Inc.
Parkersburg Rig & Reel Co.

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Timken Roller Bearing Co.

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Continental Supply Co.
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Imperial Belting Co.
International Supply Co.
Lufkin Foundry & Machine Co.
Murray Rubber Co.
Stanley Belting Corp.

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Goodyear Tire & Rubber Co.
United States Rubber Co.

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U. S. Tool Co.

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Columbian Rope Co.
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Marion Mch., Fdy. & Supply Co.
Moore, Lee C. & Co., Inc.
Parkersburg Rig & Reel Co.

Burners—Gas—
Eureka Burner Co.
Okmulgee Boiler & Welding Works.

Burners—Oil—
Baker Motors, Inc.
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Reid, Joseph, Gas Engine Co.

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Cable Bit Steel—
Andrews Steel Co.
Federal Supply Co.
Heppenstall Forge & Knife Co.

Cables—Drilling, Manila—
Ajax Rope Co., Inc.
Columbian Rope Co.
Continental Supply Co.
Frick-Reid Supply Co.
Plymouth Cordage Co.
Wall Rope Works, Inc.

Cables—Steel—
Ajax Rope Co., Inc.
American Cable Co.
Black Steel & Wire Co.
Broderick & Bascom Rope Co.
Continental Supply Co.
Frick-Reid Supply Co.
Hazard Mfg. Co.
Leschen, A. & Sons Rope Co.
Murray Tool & Supply Co.
National Supply Co.
Republic Supply Co.
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Williamsport Wire Rope Co.

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Cannon—Oil Field—
Braden Co.

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Gott, H. P., Mfg. Co.

Capping Steel—
Andrews Steel Co.

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Patrick, R. S.

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American Car & Foundry Co.
General American Tank Car Corp.
Shippers' Car Line, Inc.

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American Car & Foundry Co
North American Car Co.
Shippers' Car Line, Inc.

Casing—
Bovaird Supply Co.
Continental Supply Co.
Emsco Derrick & Equip. Co.
Jarecki Mfg. Co.
National Supply Co.
National Tube Co.
South Chester Tube Co.
Spang, Chalfant & Co., Inc.
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Oil Well Improvements Co.

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Bartlesville Supply Co.
Bridgeport Machine Co.
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Ohio Steel Foundry Co.
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Sivyer Steel Casting Co.

Castings—Corrosion Resisting Non Ferrous—
Hills-McCanna Co.

Castings—Electric Steel—
Ohio Steel Foundry Co.
Sivyer Steel Casting Co.

Castings—Grey Iron—
Ajax Iron Works.
American Car & Foundry Co.
Gaso Pump & Burner Mfg. Co.
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Chain Belt Co.
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Bartlesville Supply Co.

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Dayton Pipe Coupling Co.
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Dresser, S. R., Mfg. Co.

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Dresser, S. R., Mfg. Co.
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Cloths—Wiping—
Nye Tool & Machine Works.

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Twin Disc Clutch Co.

Cocks—Brass and Iron—
Lunkenheimer Co.
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Smith Separator Co.

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Harrisburg Pipe & Pipe Bending Co.
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Compounds—Boiler—
Dearborn Chemical Co.

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Key Boiler Equipment Co.

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Compressors—Air—
Bessemer Gas Engine Co.
Clark Brothers Co.
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Gardner Governor Co.
Ingersoll-Rand Co.
Sullivan Machinery Co.

Compressors—Ammonia—
Carbondale Machine Co.
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Compressors—Direct Connected Motor and Gas Engine Driven
Buffalo Gasolene Motor Co.
Clark Brothers Co.
Cooper, C. & G., Co.
Miller Improved Gas Engine Co.

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Bessemer Gas Engine Co.
Miller Improved Gas Engine Co.

Compressors—Gas—
Bessemer Gas Engine Co.
Chicago Pneumatic Tool Co.
Clark Brothers Co.
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National Transit Pump & Machine Co.
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Condenser Boxes—
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Couplings—Seamless Steel—
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Superior Tube Co.

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Chicago Pneumatic Tool Co.
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Baker Motors, Inc.
Frick-Reid Supply Co.
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Kelly & Jones Co.
Walworth Mfg. Co.
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Dresser, S. R., Mfg. Co.
Gasco Pump & Burner Mfg. Co.
Jarecki Mfg. Co.
Kellogg, M. W., Co.
Kennedy Valve Mfg. Co.
Lufkin Foundry & Machine Co.
Metric Metal Works.
Oil Well Supply Co.
Reading Steel Casting Co.
Republic Supply Co.
United Iron Works, Inc.
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Kelly & Jones Co.
Kerotest Mfg. Co.
Ohio Steel Foundry Co.
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Jefferson Union Co.
Kelly & Jones Co.
Metric Metal Works.
Flange Unions—
Gasco Pump & Burner Mfg. Co.
Flashlights—
National Carbon Co.
Floating Roofs and Decks—
Chicago Bridge & Iron Works.
Floodlights—
Pyle-National Co.
Forging Billets—
Andrews Steel Co.
Harrisburg Pipe & Pipe Bending Co.
Heppenstall Forge & Knife Co.
Forgings—
Champion Machine & Forging Co.
Milwaukee Forge & Machine Co.
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Sinclair Refining Co.

G

Gas Compressors (See Compressors—Gas)—
Gas Engines (See Engines—Gas)
Gas Holders—
Chicago Bridge & Iron Works.
Gaskets—
Garlock Packing Co.
McCord Radiator & Mfg. Co.
Gaskets—Fibre—
Durabla Mfg. Co.
Gas Masks & Safety Appliances—
Mine Safety Appliance Co.
Gas Meters (See Meters)—
Gas Oil (See Oil—Gas)—
Gasoline—
Berry's, James B., Sons Co.
Crown Central Petroleum Co.
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.
Sinclair Refining Co.
Skelly Oil Co.
Gasoline—Natural—
Chestnut & Smith Corp.
National Gas Products Co.
Skelly Oil Co.
Warren Petroleum Co.
Gasoline Plant Equipment—
Bessemer Gas Engine Co.
Clark Brothers Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.
Widdell Engineering Co.
Gas Regulator Casinghead—
Davis, G. M., Regulator Co.
National Gas Products Co.
Gas Scrubbers—
National Gas Products Co.
Newton Process Mfg. Co.
Gauge Glass—High Pressure—
Durabla Mfg. Co.
Gauge Poles—
Marsh Gauge Pole Co.
Gauges—Automatic Tank—
Brooks Engineering Co.
Gauges—Pressure and Vacuum—
Bristol Co.
Equitable Meter & Mfg. Co.
Metric Metal Works.
Gauges—Test—
Equitable Meter & Mfg. Co.
Metric Metal Works.
Gear Driven Pumps (See Pumps)
Gears—Cut—
Nuttall, R. D., & Co.
Gears—Reduction—
Emsco Derrick & Equipment Co.
Nuttall, R. D., & Co.
Gears—Reverse—
Emsco Derrick & Equipment Co.
Generators—
Westinghouse Electric & Mfg. Co.
Generators—Acetylene—
Oxweld Acetylene Co.
Generators—Steam—
Baker Motors, Inc.
Generators—Turbine —
Moon Manufacturing Co.
Pyle-National Co.
Westinghouse Electric & Mfg. Co.
Glassware—Chemical for Laboratory Use—
Illinois Glass Co.
Governors—
Equitable Meter & Mfg. Co.
Gardner Governor Co.
Governors—Boiler Feed—
Chaplin-Fulton Mfg. Co.
Fisher Governor Co.
Grey Iron Castings (See Castings)

H

Hammers—Chipping and Calking Pneumatic—
Chicago Pneumatic Tool Co.
Hammers—Riveting Pneumatic—
Chicago Pneumatic Tool Co.
Hangers—Iron and Steel—
Continental Supply Co.
Dodge Mfg. Corp.
Hangers—Tubing—
Hercules Tool Co.
Hatches—Gauges and Thief—
Oil Conservation Engineering Co.
Heat Exchangers —
Carbondale Machine Co.
Griscom-Russell Co.
Hope Engineering & Supply Co.
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.
Heat Exchangers—Fluid—
Braun, C. F., & Co.
Ross Heater & Mfg. Co., Inc.
High Pressure Gate Valves (See Valves)—
Hoists—Pneumatic, Geared and Universal—
Chisholm-Moore Mfg. Co.
Yale & Towne Mfg. Co.
Hoists—Portable—
Chisholm-Moore Mfg. Co.
Ford Chain Block Co.
Sullivan Machinery Co.
Wright Mfg. Co.
Yale & Towne Mfg. Co.
Hooks for Rods and Tubing—
B. & A. Specialty Co.
Dunn Mfg. Co.
Hose—
Fenwick-Reddaway Mfg. Co.
Hose—Drillers—
Goodrich, B. F., Rubber Co.
United States Rubber Co.
Hose—Oil Suction and Discharge
Goodrich, B. F., Rubber Co.
United States Rubber Co.
Hose—Rubber—
Goodyear Tire & Rubber Co.
United States Rubber Co.
Hot Rolled Strip Steel (See Steel)
Hydraulic Jacks (See Jacks)—
Hypochlorite of Lime—
Mathieson Alkali Works, Inc.

I

Insulation Materials —
Celite Products Co.
Johns-Manville, Inc.
Insurance—Fire—
Oil Insurance Association
Insurance—Tornado—
Oil Insurance Association
Iron—Ingot—
American Rolling Mill Co.

J

Jacks—Hydraulic—
Bridgeport Machine Co.
Jacks—Lifting—
Templeton, Kenly & Co., Ltd.
Jacks—Pumping—
American Mfg. Co. of Texas.
American Wells Works.
Bessemer Gas Engine Co.
Braden Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
Kansas City Hay Press. Co.
Norris, W. C.
Spang & Co.
Jars—
Arbon, Paul, & Co.
Bridgeport Machine Co.
Spang & Co.
Jar Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

K

Kerosene—
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.

L

Lacquers—
Arco Company, The
Sherwin-Williams Co.
Lanterns—Electric—
Delta Electric Co.
Lead and Mixed Metal Products—
Eagle-Picher Lead Co.
Lead in Oil—
Eagle-Picher Lead Co.
National Lead Co.
Lead Wool and Containers—
Eagle-Picher Lead Co.
Lifting Jacks—(See Jacks)—
Lighting Equipment—
Pyle National Co.
Westinghouse Electric & Mfg. Co.
Liquid Level Controls (See controllers)—
Litharge—
Eagle-Picher Lead Co.
National Lead Co.
Loaders—Trucks—
Barber-Greene Co.
Long Distance Telephone—
American Telephone & Telegraph Co.
Lubricating Devices—
McCord Radiator & Mfg. Co.
Lubricating Oils (See Oils)—
Lubricators—
Ajax Iron Works.
Lunkenheimer Co.
Lubricators—Force Feed—
Manzel Brothers Co.
McCord Radiator & Mfg. Co.

M

Machine Tools—
Ryerson, Jos. T., & Sons, Inc.
Manholes—Tank—
Brooks Engineering Corp.
Manifolds—
Reid, Joseph, Gas Engine Co.
Meters—Gas—
Equitable Meter & Mfg. Co.
Foxboro Co., Inc.
Metric Metal Works.
Pittsburgh Meter Co.
Roots, P. H. & F. M., Co.
Westcott & Greis.
Meters—Gasoline—
Pittsburgh Meter Co.
Meters—Oil—
Pittsburgh Meter Co.
Molded Goods—Rubber—
Goodyear Tire & Rubber Co.
Motors—Electric—
Fairbanks-Morse & Co.
Westinghouse Electric & Mfg. Co.
Motors—Gasoline (See Engines—Gasoline)—
Motor Trucks (See Trucks—Motor)—

N

Naphtha—
Pure Oil Co.
Natural Gasoline (See Gasoline—Natural)—
Natural Gasoline Plant Equipment
American Tank Co.
Campbell, J. A.
Cooper, C. & G., Co.
Griscom-Russell Co.
National Gas Products Co.
Roots, P. H. & F. M., Co.
Ross Heater & Mfg. Co., Inc.
Smith Separator Co.
Westcott & Greis.
Nitrogen—
Linde Air Products Co.
Nozzles—Spray—
Power Plant Equip Co.

O

Oil and Gas Pipe Line Construction—
Hope Engineering & Supply Co.
Oil Burners (See Burners—Oil)—
Oil Engines, Semi-Diesel (See Engines—Semi-Diesel Oil)—
Oil Field Equipment—
Baker Casing Shoe Co.
Bridgeport Machine Co.
Gasco Pump & Burner Mfg. Co.
International Derrick & Equipment Co.
Iron King Mfg. Co.
Kaw Boiler Works Co.
National Supply Co.
Oil Well Supply Co.
Parkersburg Machine Co.
Parkersburg Rig & Reel Co.
Reed Roller Bit Co.
Regan Forge & Engineering Co.
Reid, Joseph, Gas Engine Co.
Republic Supply Co.
Simplex Equipment Co.
Trumble Gas Trap Co.
Oil Filters—(See Filters—Oil)—
Oil—Fuel—
Crown Central Petroleum Corp.
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.
Sinclair Refining Co.
Texas Company, The
Oil—Gas—
Crown Central Petroleum Corp.
Gulf Refining Co.
Pure Oil Co.
Sinclair Refining Co.
Texas Company, The
Oil—Lubricating—
Barnsdall Refining Co.
Berry's James B., Sons Co.
Crown Central Petroleum Corp.
Empire Refineries, Inc.
Gulf Refining Co.
Humble Oil & Refining Co.
Magnolia Petroleum Co.
Pennzoil Co.
Pure Oil Co.
Sinclair Refining Co.
Skelly Oil Co.
Texas Company, The
Oil—Tractor—
Barnsdall Refining Co.
Gulf Refining Co.
Pennzoil Co.
Pure Oil Co.
Skelly Oil Co.
Oiling Devices—
Lunkenheimer Co.
Oil Meters (See Meters)—
Oil Piping Equipment (See Fittings)—
Oil Reclaiming Process—
Barnickel, Wm. S., & Co.
Houston Pump & Supply Co.
Oil Refinery Equipment (See Refinery Equipment)—
Oil Securities (See Securities)—
Oil Suction and Discharge Hose—(See Hose)—
Oil Well Cementing—
Halliburton Oil Well Cementing Co.
Oil Well Screens (See Screens)—
Oil Well Tools—
D & B Pump & Supply Co.
Hinderliter Tool Co.
Reed Roller Bit Co.
Titusville Forge Co.
U. S. Tool Co.
Over Shots—
Reed Roller Bit Co.
Regan Forge & Engineering Co.
Oxygen—
Linde Air Products Co.

P

Packer Release—
Acme Fishing Tool Co.
Packers—
Goodyear Tire & Rubber Co.
Guiberson Corp.
Larkin & Co.
Layne & Bowler Co.
Oil Well Supply Co.
Regan Forge & Engineering Co.
Spang & Co.
United States Rubber Co.
Packing—
Crane Packing Co.
Durabla Mfg. Co.
Garlock Packing Co.
Goodrich, B. F., Rubber Co.
Imperial Belting Co.
Johns-Manville, Inc.
Packing—Metallic—
Crane Packing Co.
Paint Guns—
Binks Spray Equipment Co.
Painting Equipment—Mechanical
Matthews, W. N. Corp.
Paints—
Aluminum Co. of America
American Asphalt Paint Co.
Arco Company, The
Cook Paint & Varnish Co.
Detroit Graphite Co.
Dixon, Joseph Crucible Co.
Du Pont de Nemours, E. I., & Co., Inc.
Eagle-Picher Lead Co.
Eclipse Paint & Mfg. Co.
Hill Hubbell & Co.
National Lead Co.
Sherwin-Williams Co.
St. Louis Surfacer & Paint Co.
Pipe—Cast Iron—
Greenspon's Jos., Sons Iron & Steel Co.
International Supply Co.
U. S. Cast Iron Pipe & Fdy. Co.
Pipe—Lead Chemical and Antimonial—
Eagle-Picher Lead Co.
Pipe—Steel—
Continental Supply Co.
Greenspon's Jos., Sons Iron & Steel Co.
Jarecki Mfg. Co.
Kellogg, M. W., Co.
Murray Tool & Supply Co.
National Supply Co.
National Tube Co.
Republic Iron & Steel Co.
Ryerson, Jos. T., & Sons, Inc.
South Chester Tube Co.
Spang, Chalfant & Co., Inc.
Superior Tube Co.
Pipe—Wrought Iron—
Byers, A. M., Co.
Frick-Reid Supply Co.
Greenspon's, Jos., Sons Iron & Steel Co.
Oil Well Supply Co.
Reading Iron Co.
South Chester Tube Co.
Superior Tube Co.
Pipe and Nipple Threading Machines—
Bignall & Keeler Machine Works.
Cox & Sons Co., The
Landis Machine Co.
Ryerson, Jos. T., & Sons, Inc.
Pipe Clamps (See Clamps—Pipe)
Pipe Fittings (See Fittings)—
Pipe Grips—
Larkin & Co.
Pipe Headers—
National Tube Co.
Newton Process Mfg. Co.
Pipe Line Coatings—
Hill Hubbell & Co.
Pipe Line Construction Tools—
National Transit Pump & Machine Co.
Pipe Line Ditchers (See Ditchers)
Pipe Line Equipment—
Gasco Pump & Burner Mfg. Co.
Pipe Screwing Machines—
Buckeye Traction Ditcher Co.
Pipe Straightening Machines—
W-K-M Co., Inc.
Pipe Suspension Device—
Stearns-Rogers Co.
Pipe Threaders—Power—
Williams Tool Corp.
Pipe Tools —
Armstrong Brothers Tool Co.
Nye Tool & Machine Works.
Piping—Fabricated—
Kelly & Jones Co.
Midwest Piping & Supply Co.
Piping—Hard Rubber—
United States Rubber Co.
Piping—Steel & Iron—
Crane Co.
Greenspon's, Jos., Sons Iron & Steel Co.
Power Piping Co.
Pistons—
Guiberson Corp.
Heppenstall Forge & Knife Co.
Pistons—Expansion—
Wilson Oil Tool Corp.
Pistons—Slush Pump—
Guiberson Corp.
Plugs—Bottom Water—
Guiberson Corp.
Portable Drilling Rigs (See Rigs)
Power Units—Portable (See Engines)—
Pre-Heaters—
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.
Preservatives—Asphalt—
American Asphalt Paint Co.
Pulleys—Wood, Iron and Steel—
Continental Supply Co.
Dodge Mfg. Co.
Pulling Machines—
Iron King Mfg. Co.
National Supply Co.
Safety Pulling Machine Co.
Pumpers—Long Stroke—
Farley Machine Co.
Pumping and Pulling Motors—Electric—
Westinghouse Electric & Mfg. Co.
Pumping Equipment—
American Well Works.
Axelson Machine Co.
Bryson Jackson Pump Mfg. Co., Inc.
D & B Pump & Supply Co.
Farley Machine Co.
Goulds Pumps, Inc.
Jones, S. M., Co.
Myers, F. E., Bros. & Co.
Northrup Equipment Co.
Oil Well Supply Co.
Prescott Co.
Ratigan, J. P., Co.
Waukesha Motor Co.
Pumping Gear Units—
Nuttall, R. D., & Co.
Pumping Jacks (See Jacks)—
Pumping Powers—
Bessemer Gas Engine Co.
Buda Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
Kansas City Hay Press Co.
Marion Mch., Fdy. & Supply Co.
National Supply Co.
Oil Well Supply Co.
Pattin Bros. Co.
Reid, Joseph, Gas Engine Co.
Spence Machine Co.
Titusville Iron Works Co.
Pumps—Boiler Feed—
Ajax Iron Works.
Bryan Jackson Pump Mfg. Co., Inc.
Fairbanks-Morse & Co.
Gardner Governor Co.
Oil Well Supply Co.
Pumps—Centrifugal—
American Well Works.
Byron Jackson Pump Mfg. Co., Inc.
Dean Hill Pump Co.
Fairbanks-Morse & Co.
Worthington Pump & Machinery Corp.
Pumps—Direct Driven—
Bessemer Gas Engine Co.
Pumps—Electric—
Prescott Co.
Pumps—Fuel Oil Service—
Blackmer Pump Co.
Northern Fire Apparatus Co.
Pumps—Fuel Oil Transfer—
Blackmer Pump Co.
Byron Jackson Pump Mfg. Co., Inc.
Pumps—Gasoline and Oil for Filling Stations—
Gilbert & Barker Mfg. Co.
Pumps—Gear Driven—
Gasco Pump & Burner Mfg. Co.
Lucey Mfg. Corp.
Prescott Co.

Pumps—Hot Oil—
Blackmer Pump Co.
Byron Jackson Pump Mfg. Co., Inc.

Pumps—Pipe Line—
Byron Jackson Pump Mfg. Co., Inc.
Frick-Reid Supply Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
National Transit Pump & Machine Co.
Prescott Co.
Worthington Pump & Machinery Corp.

Pumps—Power—
Dean Brothers Co.
Fairbanks-Morse & Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Myers, F. E., Bro. & Co.
National Transit Pump & Machine Co.
Novo Engine Co.
Prescott Co.
Waukesha Motor Co.

Pumps—Refinery—
Blackmer Pump Co.
Byron Jackson Pump Mfg. Co., Inc.
Dean Hill Pump Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
National Transit Pump & Machine Co.
Northern Fire Apparatus Co.

Pumps—Rotary—
Blackmer Pump Co.
Northern Fire Apparatus Co.
Roots, P. H. & F. M., Co.

Pumps—Sand—
Bridgeport Machine Co.
Larkin & Co.

Pumps—Slush—
Gardner Governor Co.

Pumps—Steam—
Dean Brothers Co.
Fairbanks-Morse Co.
Frick-Reid Supply Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Lucey Mfg. Corp.
National Transit Pump & Machine Co.
Oil Well Supply Co.
Prescott Co.

Pumps—Suction—
Gaso Pump & Burner Mfg. Co.

Pumps—Vacuum—
Bessemer Gas Engine Co.
Chicago Pneumatic Tool Co.
Clark Brothers Co.
Gaso Pump & Burner Mfg. Co.
Miller Improved Gas Engine Co.
Roots, P. H. & F. M., Co.
Ross Heater & Mfg. Co., Inc.

Pumps—Water—
American Well Works.
Byron Jackson Pump Mfg. Co., Inc.
Gaso Pump & Burner Mfg. Co.
Northern Fire Apparatus Co.
Prescott Co.

Purifiers—Oil Absorption—
Sharpless Specialty Co.

Pyrometers—
Brown Instrument Co.
Republic Flow Meters Co.

R

Ratchet Pipe Cutters—
Toledo Pipe Threading Machine Co.

Ratchet Pipe Threaders—
Nye Tool & Machine Works.
Toledo Pipe Threading Machine Co.

Ratchet Reamers—
Nye Tool & Machine Works.

Ratchet Stocks and Dies—
Nye Tool & Machine Works.
Toledo Pipe Threading Machine Co.

Receiving Boxes—
Reid, Joseph, Gas Engine Co.

Recorders—Differential Pressure—
Equitable Meter & Mfg. Co.
Metric Metal Works.

Refinery Equipment—
American Radiator Co.
Braun, C. F., & Co.
Carbondale Machine Co.
Chicago Bridge & Iron Works.
Graver Corp.
Griscom-Russell Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
Newton Process Mfg. Co.
Petroleum Appliance Co.
Petroleum Iron Works Co.
Power Piping Co.
Power Specialty Co.
Reid, Joseph, Gas Engine Co.
Ross Heater & Mfg. Co., Inc.
Ross-Mehan Foundries.
Smith, A. O., Corp.
Smith Separator Co.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.
United Iron Works, Inc.
Universal Oil Products Co.
Vogt, Henry, Machine Co.
Walsh & Weidner Boiler Co.
Westcott & Greis.
Widdell Engineering Co.

Refractories—Furnace, Stills and Baffles—
Botfield Refractories Co.
National Gas Products Co.

Refrigerating Machinery—
Carbondale Machine Co.
United Iron Works, Inc.
Vogt, Henry, Machine Co.

Regulators—
Fisher Governor Co., Inc.
Gilfillan Machine Works.
Smith Separator Co.

Regulators—Gas—
Chaplin-Fulton Mfg. Co.
Davis, G. M., Regulator Co.
Equitable Meter & Mfg. Co.
Fisher Governor Co.
Metric Metal Works.
National Gas Products Co.
Smith Separator Co.

Rental Service—
Bridgeport Machine Co.

Reversible Clutches—
Bessemer Gas Engine Co.

Rig Irons—
International Supply Co.
Lucey Mfg. Corp.
National Supply Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.

Rigs—Drilling, All Steel—
International Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Rigs—Portable Drilling—
National Supply Co.
National Turnbuckle Derrick Co.
Star Drilling Machine Co.

River Clamps (See Clamps)—

Rods—Polish—
Jones, S. M., Co.

Rods—Pull—
Axelson Machine Co.
Columbus Sucker Rod Co.
Jones, S. M., Co.
Sheffield Steel Corp.

Rods—Sucker—
Axelson Machine Co.
Columbus Sucker Rod Co.
D & B Pump & Supply Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
National Supply Co.
Oil Well Supply Co.
Republic Supply Co.
Sheffield Steel Corp.

Rods—Valve—
Jones, S. M., Co.

Roofing—Asbestos—
Johns-Manaville, Inc.

Rope Socket Metal—
Eagle-Picher Lead Co.

Rope—Manila—
Ajax Rope Co., Inc.
Boviard Supply Co.
Republic Supply Co.

Rope—Wire—
Ajax Rope Co., Inc.
American Cable Co.
Bovaird Supply Co.
Bridgeport Machine Co.
Broderick & Bascom Rope Co.
International Supply Co.
Jarecki Mfg. Co.
Leschen, A. & Sons, Rope Co.
Wickwire-Spencer Steel Corp.
Williamsport Wire Rope Co.

Rotary Bit Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

Rotary Drilling Equipment—
Emsco Derrick & Equipment Co.
Frick-Reid Supply Co.
International Derrick & Equipment Co.
Link-Belt Co.
Lucey Mfg. Corp.
Lufkin Foundry & Machine Co.
National Supply Co.
Oil Well Supply Co.
Republic Supply Co.
Titusville Iron Works Co.

Rotary Lines (See Rope—Wire)—

Rotary Post—
Reed Roller Bit Co.

Rotary Tool Joints—
Bartlesville Supply Co.
Hughes Tool Co.

Rubber Belting (See Belting)—

Rubber Hose (See Hose)—

Run Down Tanks (See Tanks)—

Rust Preventatives—
Dearborn Chemical Co.
Eagle-Picher Lead Co.

S

Sand Lines—Manila—
Ajax Rope Co., Inc.
Plymouth Cordage Co.

Sand Lines—Wire—
Ajax Rope Co., Inc.
Broderick & Bascom Rope Co.
Wickwire-Spencer Steel Corp.

Screens—Oil Well—
Layne & Bowler Co.

Screens—Water Well—
Layne & Bowler Co.

Screws Tempers—
Burns Tool Co.

Seamless Steel Couplings (See Couplings Seamless Steel)—

Separators—Centrifugal—
Miller, Max B., & Co.
Sharpless Sepciality Co.
Vols Engineering Equipment Co.

Separators—Gas and Oil—
American Tank Co.
Smith Separator Co.

Sheet Lead—Chemical and Antimonial—
Eagle-Picher Lead Co.

Sheets—Corrugated, Black and Galvanized—
American Sheet & Tin Plate Co.
Ryerson, Jos. T., & Son, Inc.
United Alloy Steel Corp.

Sheets—Steel—
American Sheet & Tin Plate Co.
Republic Iron & Steel Co.
Sheffield Steel Corp.
United Alloy Steel Corp.

Shingles—Asbestos—
Johns-Manaville, Inc.

Sleeves—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Sleeves—Split—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Slush Pump Pistons (See Pistons)—

Slush Pumps (See Pumps)—

Smoke Stacks—
Donovan Boiler Works.

Snuffers—Fire—
Simplex Equipment Co.

Sockets—
Acme Fishing Tool Co.
Bridgeport Machine Co.
Spang & Co.

Sockets—Sucker Rod—
Guiberson Corp.

Sockets—Swivel—
Arbon, Paul, & Co.

Sockets—Wire Rope—
Chicago Steel Foundry Co.

Soda Ash—
Mathieson Alkali Works, Inc.

Soda—Caustic—
Mathieson Alkali Works, Inc.

Solders—Bar and Wire
Eagle-Picher Lead Co.
Hoyt Metal Co.

Spark Plugs—
Mosler Metal Products Corp.

Spears—
Acme Fishing Tool Co.
Brown Tool Co., Inc.

Special Steel (See Steel Special)—

Split Sleeves (See Sleeves)—

Sprockets—Power Transmission—
Ajax Iron Works.
Chain Belt Co.

Stands—Vice—
Nye Tool & Machine Works.

Stationary Pipe Threading Die Heads (See Die Heads)—

Steel—All Kinds—
Ryerson, Jos., T., & Son, Inc.

Steel—Alloy—
Central Steel Co.
Timken Roller Bearing Co.
United Alloy Steel Corp.

Steel—Bit—
Central Steel Co.

Steel—Hot Rolled Strip—
Central Steel Co.

Steel—Special—
Andrews Steel Co.
Central Steel Co.
United Alloy Steel Corp.

Steel Band Wheels (See Band Wheels—Steel)—

Steel Bridges (See Bridges)—

Steel Bull Wheels (See Bull Wheels—Steel)—

Steel Castings (See Castings)—

Steel Couplings for Casing, Line Pipe, Drill Pipe and Tubing (See Couplings)—

Steel Crown Blocks (See Crown Blocks)—

Steel Derricks (See Derricks)—

Steel Fabricators—Structural—
Austin Co.
Braden Co.
Graver Corp.
International Derrick & Equipment Co.

Steel Fittings (See Fittings)—

Steel Pitmans—
International Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Steel Plate Construction—
Chicago Bridge & Iron Works.
Graver Corp.
Kaw Boiler Works Co.
Petroleum Iron Works Co.
Vogt, Henry, Machine Co.

Steel Sheets (See Sheets, Steel)—

Steel Valves (See Valves, Steel)—

Steel Walking Beams (See Walking Beams—Steel)—

Steel Wheels and Tug Rims—
International Derrick & Equipment Co.

Stills—
Chicago Bridge & Iron Works.
Graver Corp.
Kaw Boiler Works Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
Newton Process Mfg. Co.
Petroleum Iron Works Co.
Smith, A. O., Corp.
Vogt, Henry, Machine Co.
Widdell Engineering Co.

Stocks & Dies—
Borden Co.
Nye Tool & Machine Works.
Toledo Pipe Threading Machine Co.

Structural Steel Fabricators (See Steel Fabricators)—

Stuffing Boxes—
Axelson Machine Co.
Kansas City Hay Press Co.

Sucker Rods (See Rods—Sucker)

Suction Pumps (See Pumps)—

Sulphuric Acid—
Eagle-Picher Lead Co.

Superheaters—Steam—
Power Plant Equipment Co.

Swabs—
Arbon, Paul, & Co.
Burt Corporation.
Guiberson Corp.
Simplex Equipment Co.

Swedge Nipples—
Dresser, S. R., Mfg. Co.
Harrisburg Pipe & Pipe Bending Co.

Swing Line Equipment—
Brooks Engineering Corp.

Swivels—
Layne & Bowler Co.
Lucey Mfg. Corp.
Titusville Iron Works Co.

T

Tank Cars (See Cars—Tank)—

Tank Cars Leased (See Cars)—

Tank Equipment—
Brooks Engineering Corp.
Oil Conservation Engineering Co.

Tanks—Bolted—
American Tank Co.
Butler Mfg. Co.
Maloney Tank Mfg. Co.
Parkersburg Rig & Reel Co.

Tanks—Bulk Station—
Butler Mfg. Co.
Graver Corp.

Tanks—Cylindrical—
Petroleum Iron Works Co.

Tanks—Elevated Steel—
Chicago Bridge & Iron Works.

Tanks—Field Storage—
American Car & Foundry Co.
American Tank Co.
Donovan Boiler Works.
Graver Corp.
Kaw Boiler Works.
Kewanee Boiler Co.
Maloney Tank Mfg. Co.
Petroleum Iron Works Co.
Pittsburgh-Des Moines Steel Co.
Riter-Conley Co.
United Iron Works, Inc.

Tanks—Horizontal Storage—
Graver Corp.
Kaw Boiler Works Co.
Maloney Tank Mfg. Co.

Tanks—Run Down—
Donovan Boiler Works.
Graver Corp.
Kaw Boiler Works Co.
Newton Process Mfg. Co.

Tanks—Truck—
American Tank Co.
Butler Mfg. Co.
White Co.

Tanks—Underground—
Butler Mfg. Co.
Gilbert & Barker Mfg. Co.
Graver Corp.
Kewanee Boiler Co.
Pittsburgh-Des Moines Steel Co.

Tanks—Welded—
American Tank Co.
Chicago Bridge & Iron Works.

Taper Taps—
Hughes Tool Co.

Tapes—Measuring for Oil Gauging—
Lufkin Rule Co.

Temper Screws (See Screws)—

Thermometers—Indicating and Recording—
American Schaeffer & Budenberg Corp.
Bristol Co.
Taylor Instrument Co.

Threading Machines—
Bignall & Keeler Machine Wks.
Cox & Sons Co., The.
Landis Machine Co.

Thread Protectors—
Spang & Co.

Tires—Automobile—
Continental Supply Co.

Tongs—
Bridgeport Machine Co.
Wilson Oil Tools Corp.

Tongs—Back Up—
Williams, J. H., & Co.

Tongs—Break Out—
Reed Roller Bit Co.
Williams, J. H., & Co.

Tongs—Casing—
Dunn Mfg. Co.
Guiberson Corp.

Tongs—Chain Pipe—
Armstrong Bros. Teol Co.
Williams, J. H., & Co.

Tongs—Pipe—
National Transit Pump & Machine Co.

Tongs—Rotary—
Dunn Mfg. Co.

Tongs—Tool Joint—
Guiberson Corp.
Hughes Tool Co.
Reed Roller Bit Co.

Tongs—Tubing—
Dunn Mfg. Co.

Tool Chests—Pipe—
Nye Tool & Machine Works.

Tool Joints—
Bridgeport Machine Co.
Federal Supply Co.
Hughes Tool Co.
Lucey Mfg. Corp.
Oil Well Supply Co.
Regan Forge & Engineering Co.

Tool Joint Tongs (See Tongs)—

Tools—Fishing and Drilling (See Drilling and Fishing Tools)—

Torches—
Oxweld Acetylene Co.

Tractor Oil (See Oil—Tractor)—

Tractors—
Cleveland Tractor Co.
International Harvester Co. of America.

Trailers—
Spencer Trailer Co.

Transmission Belt—Rubber—
Goodrich, B. F., Rubber Co.
United States Rubber Co.

Transmission Lining—
Stanley Belting Corp.

Traveling Block—
Lucey Mfg. Corp.
Regan Forge & Engineering Co.
Wright Mfg. Co.

Trenchers—Vertical Boom—
Barber-Greene Co.

Trucks—Motor—
Ford Motor Co.
General Motors Truck Co.
Graham Brothers.
International Harvester Co. of America.
White Co.

Truck Tanks (See Tanks)—

Truck Tires (See Tires—Truck)—

Tubes—Boiler, Charcoal Iron—
Byers, A. M., Co.
Reading Iron Co.

Tubes—Boiler Steel—
Continental Supply Co.
National Tube Co.
Ryerson, Jos. T., & Sons, Inc.

Tubing—
Babcock & Wilcox Tube Co.
Byers, A. M., Co.
Central Tube Co.
Continental Supply Co.
National Tube Co.
Reading Iron Co.
South Chester Tube Co.
Spang, Chalfant & Co., Inc.
Superior Tube Co.
Wheeling Steel Corp.

Tubing Catchers—
Continental Supply Co.
Dunn Mfg. Co.
Guiberson Corp.

Tubing Elevators (See Elevators, Casing and Tubing)—

Tubular Goods—
Continental Supply Co.
Oil Well Supply Co.
Republic Iron & Steel Co.
Spang, Chalfant & Co., Inc.

Tubular Goods—Wrought Iron—
Byers, A. M., Co.
Reading Iron Co.

Turbines for Lighting Equipment
Lucey Mfg. Corp.
Westinghouse Electric & Mfg. Co.

Turbine Generators (See Generators—Turbine)—

Turnbuckle Derricks (See Derricks)—

U

Underground Tanks (See Tanks)

Underreamer Body Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

Underreamers—
Bridgeport Machine Co.
Brown Tool Co., Inc.
Guiberson Corp.
Wilson Oil Tools Corp.

Unions—
Jefferson Union Co.
Kelly & Jones Co.

V

Vacuum Pumps (See Pumps)—

Valuations—
American Appraisal Co.

Valves—Blow-Off—
Homestead Valve Mfg. Co.

Valves—Brass and Bronze—
Homestead Valve Mfg. Co.
Kelly & Jones Co.
Lunkenheimer Co.
Reading Steel Casting Co.
Walworth Mfg. Co.

Valves—Cast Steel—
Chapman Valve Mfg. Co.
Homestead Valve Mfg. Co.

Valves—Check—
Gaso Pump & Burner Mfg. Co.
Lunkenheimer Co.

Valves—Drop Forged Steel—
Edward Valve & Mfg. Co.
Vogt, Henry, Machine Co.

Valves—Gate—High and Low Pressure—
Chapman Valve Mfg. Co.
Crane Co.
Darling Valve & Mfg. Co.
Kelly & Jones Co.
Kennedy Valve Mfg. Co.
Kerotest Mfg. Co.
Ludlow Valve Mfg. Co.
Lunkenheimer Co.
Murray Tool & Supply Co.
Powell, Wm., Co.

Valves—Iron—
Chapman Valve Mfg. Co.
Lunkenheimer Co.
Reading Steel Casting Co.

Valves—Metal Pump—
Durabla Mfg. Co.

Valves—Pump—
United States Rubber Co.

Valves—Relief—Supersensitive—
Davis, G. M., Regulator Co.

Valves—Steel—
Chapman Valve Mfg. Co.
Edward Valve Mfg. Co.
Kelly & Jones Co.
Kerotest Mfg. Co.
Lunkenheimer Co.
Metric Metal Works.
Powell, Wm., Co.
Reading Steel Casting Co.

Valves—Tank Vent—
Brooks Engineering Corp.
Oil Conservation Engineering Co.

Valves—Working Barrel—
Atlas Ball Co.
Axelson Machine Co.
D & B Pump & Supply Co.
Hough, Charles N., Mfg. Co.
Northup Equipment Co.
Oil Well Supply Co.

Varnishes—
Arco Company, The.
Detroit Graphite Co.
Sherwin-Williams Co.

Ventilators—Rotary—
Swartwout Co.

Vises—Bench—
Nye Tool & Machine Works.

Vises—Pipe—
Nye Tool & Machine Works.

Vises—Post—
Nye Tool & Machine Works.

W

Wagons—Truss Wheel—
Athey Truss Wheel Co.

Walking Beams—Steel—
Emsco Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Water Cooling Systems—
Power Plant Equipment Co.

Water Softeners and Filters—
Butler Mfg. Co
Graver Corp.

Water Well Screens (See Screens)

Wax—
Barnsdall Refining Co.
Gulf Refining Co.
Pure Oil Co.

Weight Indicators—
Hughes Tool Co.

Welded Tanks (See Tanks)—

Welding Accessories—Electric—
Wilson Welder & Metals Co.

Welding and Cutting Apparatus—
Oxweld Acetylene Co.

Welding Machines—Electric—
Wilson Welder & Metals Co.

Welding Supplies—
Oxweld Acetylene Co.

Welding Wire—
Frick-Reid Supply Co.
Oxweld Acetylene Co.
Wilson Welder & Metals Co.

Well Shooting—
Eastern Torpedo Co.
Zero Hour Torpedo Co.

Wheels—Pipe Cutter—
Nye Tool & Machine Works.

Wheels—Steel Automotive—
Budd Wheel Co.

Winches—
Braden Co.
Brooks Engineering Co.
Oil Conservation Engineering Co.

Wire Lines (See Cables—Steel)—

Wood Patterns and Models—
Gaso Pump & Burner Mfg. Co.

Working Barrels—
Axelson Machine Co.
D & B Pump & Supply Co.
Franklin Valveless Engine Co.
Frick-Reid Supply Co.
Hough, Charles N., Mfg. Co.
McGregor Working Barrel Co.
Norris, W. C.
Northrup Equipment Co.
Oil Well Supply Co.

Wrenches—Closet Spuds—
Nye Tool & Machine Works.

Wrenches—Drop Forged—
Williams, J. H., & Co.

Wrenches—Pipe—
Trimont Mfg. Co.
Walworth Mfg. Co.

Wrenches—Ratchet—
Dresser, S. R., Mfg. Co.
Nye Tool & Machine Works.

Z

Zinc Oxide—
Eagle-Picher Lead Co.

Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS

Pipe Line Statement for March

Runs

	Month	Dy. Av.
*Prairie Pipe Line Co.	3,844,000	124,000
Gulf Pipe Line Co.	1,032,048	33,292
Texas Pipe Line Co.	481,623	15,536
Magnolia Petroleum Co.	1,142,666	36,860
Cosden Pipe Line Co.	904,789	29,187
Empire Pipe Line Co.	682,764	22,025
*Sinclair Pipe Line Co.	1,489,674	48,054
*Other lines	8,091,000	261,000
Total March	17,668,564	569,953
Total Feb.	15,245,347	544,476
Difference	2,423,217	25,478

Shipments

	Month	Dy. Av.
†Prairie Pipe Line Co.	4,588,038	148,001
Gulf Pipe Line Co.	1,117,185	36,035
Texas Pipe Line Co.	759,387	24,496
Magnolia Petroleum Co.	1,490,078	48,067
Cosden Pipe Line Co.	633,864	20,447
Empire Pipe Line Co.	758,407	24,465
†Sinclair Pipe Line Co.	2,700,289	87,106
*Other lines	8,494,000	274,000
Total March	20,540,959	662,617
Total Feb.	19,168,415	618,333
Difference	1,372,544	44,284

Stocks

*Prairie Oil & Gas Co.	27,210,000
*Prairie Pipe Line Co.	2,000,000
Gulf Pipe Line Co. and Gypsy Oil Co.	6,378,816
The Texas Company	3,759,040
Magnolia Petroleum Co.	5,142,309
Cosden Pipe Line Co.	1,856,367
Empire Pipe Line Co.	2,814,802
*Sinclair Crude Oil Purchasing Co.	21,100,000
Carter Oil Co.	14,600,000
*Other lines	9,900,000
Total March	94,761,334
Total February	96,242,376
Difference	1,481,042

*Estimated. †Prairie shipments also include Texas crude oil and Sinclair shipments include Texas and Wyoming crude oil.

Note—Stocks do not include approximately 5,900,000 bbls. held in storage on private tank farms and leases.

EASTERN PIPE LINES

Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for February and March:

	Feb. '26	Mar. '26
Nat. Transit	140,437.20	152,572.78
S. W. Pa. P. L.	82,218.00	92,161.74
Eureka P. L.	328,709.96	373,065.58
Buckeye P. L. (Macksburg)	275,240.87	327,422.18
Buckeye P. L. (Cleveland)	10,297.41	11,923.54
Buckeye P. L. (Lima, etc.)	117,052.32	135,330.32
Indiana P. L.	9,530.57	10,428.03
Cumberland P. L.	257,256.68	284,867.52
N. Y. Transit	17,815.08	18,958.88
Tide Water P. L.	136,339.08	154,702.25
Pure Oil	158,793.42	178,024.39
Emery P. L.	43,385.55	51,169.64
Indian Ref.	80,656.88	86,931.73
Paragon Dev.	25,650.67	26,590.23
Pittsburgh P. L.	6,649.29	6,801.52
Total	1,691,032.98	1,910,950.33
Daily average	60,394.03	61,643.56

Note—Indian Refining Co. also reported other receipts of 294,738.45 bbls. Paragon Refining Co. had other receipts of 174,511.17 bbls. Paragon Development had other receipts of 2,462.35 bbls. Pure Oil had other receipts of 64,360.22 bbls.

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for February and March:

	Feb. '26	Mar. '26
Nat. Transit	300,294.95	385,116.90
S. W. Pa. P. L.	320,351.13	389,473.31
Eureka P. L.	148,099.79	188,567.14
Buckeye P. L. (Macksburg)	122,324.18	130,098.28
Buckeye P. L. (Cleveland)	969.77	1,364.43
Buckeye P. L. (Lima, etc.)	705,531.60	744,048.97
Indiana P. L.	1,099,401.49	995,973.29
Cumberland P. L.	150,113.41	151,179.06
N. Y. Transit	526,231.48	579,234.50
Northern P. L.	122,498.92	130,218.72
Tide Water P. L.	143,555.36	174,944.54
Pure Oil	211,673.48	217,525.82
Emery P. L.	44,896.24	48,128.83
Paragon Ref.	118,033.56	159,936.73
Indian Ref.	421,529.21	420,774.52
Paragon Dev.	22,864.81	39,731.97
Pittsburgh P. L.	6,292.15	7,088.04
Total	4,465,661.53	4,657,395.45
Daily average	159,487.91	150,238.56

Gross Stocks

The gross stocks held by various pipe lines in the oil producing sections of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky, at the close of February and March, were as follows:

	Feb. '26	Mar. '26
Nat. Transit	1,010,662.31	1,040,222.33
S. W. Pa. P. L.	668,593.49	690,133.67
Eureka P. L.	1,514,335.47	1,497,216.56
Buckeye P. L. (Macksburg)	372,524.75	351,943.86
Buckeye P. L. (Cleveland)	66,885.32	52,018.53
Buckeye P. L. (Lima, etc.)	2,402,586.47	2,301,324.72
Indiana P. L.	560,608.52	558,421.46
Cumberland P. L.	583,281.41	593,665.61
Southern P. L.	532,095.25	488,804.68
N. Y. Transit	721,540.07	731,527.82
Northern P. L.	481,120.13	458,451.24
Pure Oil	405,108.77	429,500.88
Emery P. L.	29,360.37	32,243.81
Paragon Ref.	71,433.17	85,108.55
Indian Ref.	159,991.34	123,338.21
Paragon Dev.	5,465.24	4,370.50
Pittsburgh P. L.	4,502.80	.....
Total	9,579,394.88	9,438,292.43
Decrease	279,775.48	141,102.45

Grades of Oil

The following table shows the amount of the different grades of oil held by the eastern pipe lines at the close of February and March showing the gross stocks of the above fields:

	Feb. '26	Mar. '26
Pennsylvania	3,895,733.10	3,842,525.79
Lima	1,082,956.97	968,283.05
Kentucky	1,181,936.95	1,166,146.58
Mid-Continent	3,396,996.28	3,408,098.00
Illinois	81,771.58	63,239.01
Total	9,579,394.88	9,438,292.43

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1923	1924	1925	1926
January	75,790	63,638	56,831	55,630
February	71,092	62,930	62,606	60,394
March	76,592	68,721	60,575	61,644
April	75,614	71,058	63,062	.....
May	77,365	63,942	59,217	.....
June	77,593	63,230	61,270	.....
July	71,879	64,208	62,629	.....
August	76,310	59,942	59,686	.....
September	72,358	62,930	62,510	.....
October	76,256	64,976	60,995	.....
November	70,762	56,282	59,350	.....
December	69,271	55,814	57,974	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1923	1924	1925	1926
January	171,067	145,518	157,889	156,056
February	164,219	148,732	160,863	159,488
March	185,487	147,098	154,591	150,229
April	170,751	147,611	151,429	.....
May	177,102	134,997	146,995	.....
June	173,598	143,010	149,467	.....
July	168,330	124,187	161,338	.....
August	142,776	123,120	161,730	.....
September	137,266	127,325	156,719	.....
October	134,597	123,170	145,388	.....
November	131,756	124,400	142,523	.....
December	139,909	151,393	150,162	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields, including oil received from other lines, at the close of each month for the past three years:

	1924	1925	1926
January	12,907,202	11,363,276	9,859,170
February	11,844,068	11,182,924	9,579,364
March	10,906,752	11,158,297	9,438,292
April	10,922,742	11,062,082	.....
May	11,335,309	11,207,562	.....
June	11,544,204	11,093,796	.....
July	12,062,361	11,067,453	.....
August	12,221,676	10,974,481	.....
September	12,206,836	10,781,753	.....
October	12,564,061	11,086,850	.....
November	12,268,530	11,068,158	.....
December	11,583,680	10,458,445	.....

Franklin Pipe Line Co.

The following table exhibits the condition of the Franklin Pipe Line at the close of business for the months named and not counted in the stocks and averages reported above:

1925—	Recpts.	Shpmts.	Stocks
March	3,177.21	2,354.30	11,898.74
April	3,040.41	1,780.11	13,159.04
May	2,814.99	5,719.90	10,254.13
June	3,052.75	1,221.83	12,085.05
July	2,638.34	3,174.10	11,550.29
August	3,216.97	1,577.99	13,189.27
September	2,929.99	5,352.05	10,767.21
October	2,869.75	1,499.34	12,137.62
November	2,769.66	2,571.32	12,283.40
December	2,661.87	3,441.67	11,503.60
1926—			
January	2,990.16	1,478.35	13,015.41
February	2,580.23	2,776.19	12,819.45
March	2,764.62	1,732.77	13,841.30

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks, April 1	3,734,910.62
Runs from wells	723,397.91
Other receipts	472,013.69
Regular deliveries	477,346.01
Other deliveries	520,627.61

The amount of Illinois oil run by the Tide Water Pipe Co. in March was 29,902.81 bbls. and deliveries were 47,279.94 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

1925—		
April	622,866.14	637,242.81
May	692,671.94	568,573.62
June	700,090.46	589,536.34
July	724,481.26	564,713.19
August	673,652.35	650,649.91
September	706,434.87	510,697.61
October	706,532.00	633,682.32
November	664,556.30	488,449.19
December	665,086.99	578,938.47
1926—		
January	665,243.62	516,083.76
February	632,611.99	506,310.51
March	753,300.74	524,625.95

The Tide Water Pipe Co., Ltd., also delivered in March 127,929.30 bbls. of Oklahoma oil. The total deliveries of all grades by the Tide Water were 350,153.68 bbls.

AVERAGE DAILY RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF PORTS

Average bbls. per day—	ATLANTIC PORTS						GULF COAST PORTS					
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	New Orleans Baton Rouge	Port Arthur Sabine Pass	Tampa	Total	Total All Ports
December	6,226	12,129	28,452	20,198	9,677	76,677	.....	4,339	4,871	.....	9,710	86,387
January	9,355	13,484	32,581	19,387	5,097	79,804	.....	.....	.....	66	66	79,869
February	13,111	9,464	28,214	24,393	20,107	95,289	.....	.....	.....	.....	.....	95,289
March	7,000	2,516	48,839	16,612	16,903	91,870	.....	.....	.....	.....	.....	91,870

AVERAGE DAILY IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

Average bbls. per day—	ATLANTIC PORTS						GULF COAST PORTS					
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	New Orleans Baton Rouge	Port Arthur Sabine Pass	Tampa	Total	Total All Ports
December	12,806	20,548	35,612	15,064	30,613	114,644	13,129	25,387	6,935	5,516	50,967	165,611
January	12,451	19,484	49,451	12,645	21,903	115,934	21,903	25,871	5,645	4,871	58,290	174,224
February	14,643	16,071	60,107	9,464	20,750	121,035	22,321	50,250	6,286	6,714	85,571	206,606
March	28,387	15,935	81,742	16,290	34,258	176,612	19,355	44,097	7,096	5,294	75,842	252,454

GROSS PRODUCTION OF THE UNITED STATES FOR 12 MONTHS

(IN BARRELS)

		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mountains	Eastern Fields	Total
April:	Month	17,959,053	14,055,450	12,696,365	2,971,110	7,560,230	1,767,077	2,744,691	3,084,000	62,837,576
	Daily average	598,655	468,515	423,179	99,037	252,008	58,903	91,490	102,800	2,094,586
May:	Month	18,820,328	14,443,675	13,077,697	3,493,266	11,813,996	1,886,752	2,799,542	3,167,300	69,502,556
	Daily average	607,107	465,925	421,861	112,686	381,097	60,863	90,308	102,171	2,243,018
June:	Month	19,288,135	13,833,970	12,602,540	3,229,440	9,200,272	1,830,965	2,764,498	3,289,000	66,127,920
	Daily average	642,938	461,099	420,085	107,648	306,672	61,032	91,816	109,000	2,204,264
July:	Month	20,411,049	14,263,565	12,327,598	3,686,675	7,835,819	1,898,178	3,129,199	3,248,000	66,910,083
	Daily average	658,421	460,115	397,984	118,925	252,768	61,231	100,942	108,000	2,158,390
August:	Month	21,005,580	14,441,040	11,936,079	3,568,087	7,450,580	1,858,543	3,250,448	3,177,000	66,677,357
	Daily average	677,599	465,840	385,032	114,777	240,341	56,727	104,853	102,484	2,150,883
September:	Month	20,062,763	14,835,040	11,264,890	3,393,270	6,457,950	1,776,570	3,235,625	3,212,000	64,238,108
	Daily average	668,759	494,168	375,496	113,109	215,265	59,219	107,854	107,067	2,140,937
October:	Month	20,015,076	14,921,199	11,196,511	3,477,146	6,409,281	1,871,830	3,394,990	3,248,000	64,534,033
	Daily average	645,648	481,329	361,178	112,166	206,751	60,382	109,500	104,774	2,081,743
November:	Month	19,095,907	14,590,980	10,650,087	3,221,760	5,927,955	1,768,882	3,088,121	2,992,000	61,325,692
	Daily average	636,530	486,366	355,003	107,397	197,599	58,629	102,937	99,753	2,044,190
December:	Month	19,349,711	14,123,848	10,930,455	3,308,816	6,047,883	1,763,966	3,187,164	3,086,900	61,698,742
	Daily average	630,959	455,608	352,595	106,736	195,093	56,902	102,812	99,552	1,990,283
January:	Month	19,069,563	13,674,813	10,880,814	3,250,536	5,489,620	1,606,952	3,136,280	3,014,000	60,122,578
	Daily average	615,147	441,123	350,994	104,856	177,084	51,835	104,396	97,226	1,939,438
February:	Month	17,163,963	12,387,620	9,689,120	2,877,812	4,756,836	1,583,904	2,769,605	2,981,000	54,159,860
	Daily average	612,999	442,415	346,040	102,779	169,887	56,568	98,914	104,678	1,934,281
March:	Month	18,825,786	14,313,886	10,757,341	3,384,887	5,115,837	1,889,946	3,151,250	3,216,000	60,602,933
	Daily average	607,283	461,706	347,011	107,577	165,027	60,966	101,653	103,742	1,954,972
Total 12 months		230,967,514	169,873,086	138,018,497	39,802,805	84,066,359	21,493,565	36,641,413	37,865,200	758,728,439
Daily average		632,620	465,433	378,133	109,049	230,319	58,886	100,388	103,740	2,078,708

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